

Cancer Incidence and Mortality in Nebraska: 1999



June, 2002

NEBRASKA HEALTH AND HUMAN SERVICES SYSTEM



The Nebraska Cancer Registry contains a wealth of information,
not all of which can be included in this summary report:

What types of data are available?

- Demographic information: age at diagnosis, gender, race/ethnicity, county of residence
- Medical history: diagnosis, primary site, cell type, stage of disease at diagnosis
- Therapy: surgery, radiation therapy, chemotherapy, immunotherapy, hormone therapy
- Follow-Up: length of survival, cause of death

Who may request data from the Nebraska Cancer Registry?

- Medical Researchers
- Health Planners
- Marketing Researchers
- Health Care Facility Administrators
- Physicians
- Nurses
- Health Care Facility Cancer Committees
- Oncology Conference Planners and Speakers
- Patient Care Evaluators
- Pharmaceutical Companies
- Government Officials
- Concerned Citizens
- Students

How do I make a request?

Contact the Data Management Section at the
Nebraska Health and Human Services System
Department of Regulation and Licensure
P.O. Box 95007, Lincoln, NE 68509-5007
Phone 402/471-2241, Monday-Friday between 8 am and 5 pm

Please note: To comply with confidentiality regulations, the NHHSS reserves the right to limit the amount and type of data that are released in response to a request.

NEBRASKA CANCER REGISTRY 1999 ANNUAL REPORT

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INTRODUCTION

This publication represents the thirteenth annual statistical summary of the Nebraska Cancer Registry (NCR) since it began collecting data in 1987. The purpose of this report is to present the registry's most recent data to the citizens of the State of Nebraska. The majority of the data cover cancer diagnoses and cancer deaths that occurred between January 1, 1999 and December 31, 1999, as well as during the past five years (January 1, 1995-December 31, 1999).

The NCR was founded in 1986, when the Nebraska Unicameral authorized funding for a state cancer registry using a portion of funds generated by the state's cigarette tax. The establishment of the registry successfully combined the efforts of many Nebraska physicians, legislators, concerned citizens, and the Nebraska Medical Foundation, all of whom had worked for years toward this goal. The Nebraska Medical Foundation also helped to establish the registry with financial assistance. Since 1994, the NCR has received additional funding from the Centers for Disease Control and Prevention.

The Nebraska Health and Human Services System (NHHSS) currently manages the NCR, although data collection and editing are performed by the Nebraska Methodist Hospital of Omaha, under contract to the Nebraska Medical Foundation. Analysis of registry data and preparation of the annual statistical report is the responsibility of the NHHSS.

The purpose of the registry is to gather data with which to describe cancer incidence, mortality, treatment, and survival in Nebraska. These data have a wide variety of uses, both inside and outside of the NHHSS. Within the NHHSS, they are monitored closely from year to year to determine the trends that are developing, and to see how Nebraska compares to the rest of the nation. They are

indispensable for investigating reports of cancer clusters (the term "cancer cluster" refers to any alleged or actual increase in the number of cases of cancer in a neighborhood or community) throughout the state. The NHHSS also uses these data to help with the planning and evaluation of programs in the area of cancer control. Outside of the NHHSS the registry has furnished information to many individuals, institutions, and organizations, including the University of Nebraska Medical Center, the National Cancer Institute, and the American Cancer Society.

The NHHSS welcomes inquiries about cancer from the public. To obtain cancer data or information about the registry not included in this report, please refer to the instructions provided inside the front cover. For more information about cancer control activities within the NHHSS, please call the Office of Disease Prevention and Health Promotion 402/471-9270, or write to the Office of Disease Prevention and Health Promotion, Nebraska Health and Human Services System, P.O. Box 95044, Lincoln, NE 68509-5044.

An electronic copy of this report is now available to Internet users via the NHHSS web site. The URL address is <http://www.hhs.state.ne.us/srd/srdindex.htm>.

METHODOLOGY

Data Collection and Management

The NCR gathers data on Nebraska residents diagnosed and treated for invasive and in situ tumors. Benign tumors, benign polyps, basal cell carcinomas of the skin, and in situ and localized squamous cell carcinomas of the skin are excluded from the registry. Information collected on each case includes the patient's name, address, birthdate, race, gender, and Social Security number; date of diagnosis; primary site of the cancer (coded according to the International Classification of Diseases for Oncology, 2nd edition [ICD-O-2] until December 31, 2000); stage of disease at diagnosis; facility where the initial diagnosis was made; basis of staging; method of diagnostic confirmation; and histological type (also classified according to the ICD-O-2). Follow-up information is gathered periodically on registered cases, and includes the date of last contact with the patient, status of disease, type of additional treatment, quality of survival; and, if death has occurred, the date and cause of death and the status of the cancer at the time of death. The registry gathers this information from every hospital in the state for all persons diagnosed with and/or treated for cancer. In addition, the registry includes Nebraska residents who are diagnosed with and/or treated for cancer out of state. NCR data also include cases diagnosed and/or treated at pathology laboratories, radiation therapy sites, physician's offices, and cases only identified from death certificates.

Nebraska cancer mortality data are obtained from death certificates on file with the NHHSS. Mortality data are available for every Nebraska resident who dies from cancer, whether death occurs in or outside of Nebraska. The mortality data presented in this report are limited to those deaths where cancer is listed as the underlying (i.e., primary) cause of death. For deaths that occurred in 1999, causes of death are coded according to the Tenth Edition of the International Classification of Disease (ICD-

10). For deaths that occurred prior to 1999, causes of death are coded according to the Ninth Edition of the International Classification of Disease (ICD-9).

U.S. cancer incidence and mortality data are taken from the most recent annual statistical summary report of the National Cancer Institute's Surveillance, Epidemiology, and End Results (SEER) Program. The SEER Program compiles incidence data from 14 cancer registries located throughout the United States, and these data provide estimates of national cancer incidence. The mortality data are compiled by the National Center for Health Statistics and include all cancer deaths occurring in the United States, with cancer deaths defined as only those deaths for which cancer is listed as the underlying cause.

Confidentiality

All data obtained by the NCR from the medical records of individual patients are held in strict confidence by the NHHSS. As specified in state statute, bona fide researchers may obtain case-specific and/or patient-identifiable information from the registry by submitting a written application that describes how the data will be used for scientific study. In situations where contact with a patient or patient's family is proposed, the applicant must substantiate the need for any such contact and submit approval from an Institutional Review Board (IRB). Upon favorable review by the NHHSS, the applicant must also agree to maintain the confidentiality and security of the data throughout the course of the study.

Aggregate data (i.e., statistical information) from the registry are considered open to the public and are available upon request. Details on how to obtain such data are provided inside the front cover of this report.

Quality Assurance

The NCR and reporting facilities spend a great deal of time and energy to ensure that the information they gather is both accurate and complete. In recent years, these efforts have met with great success. For five years straight (1995-1999), the NCR has met all of the criteria necessary to earn the Gold Standard of data quality awarded by the North American Association of Central Cancer Registries (NAACCR). These criteria include:

- 1) Completeness of case ascertainment – The registry must find at least 95% of the total number of cases that are estimated to have occurred.
- 2) Completeness of information – The proportion of registry cases missing information on age at diagnosis, gender, and county of residence must be no more than 2%, and the proportion missing information on race must be no more than 3%.
- 3) Data accuracy – Error rates based on edit checks of selected data items must be no greater than 1%.
- 4) Timeliness – All data for a single calendar year must be submitted to the NAACCR for review no more than 23 months after the year has ended.

Gold standard certification also requires that all cases pass strict edits and that the proportion of registry cases found solely through a review of death certificates must be no more than 3%. Lastly, the proportion of duplicate cases in the registry must be no more than one per 1,000.

Definitions

Several technical terms are used in presenting the data in this report. The following definitions are presented here to assist the reader.

Incidence rate

An incidence rate is the number of new cases of a disease that occur within a specific population, divided by the size of the population. For example, if 10 residents of a county with 20,000 residents are diagnosed with colorectal cancer during a single year, then the incidence rate for that county for that year is .0005. Since cancer incidence rates are usually expressed per 100,000 population, this figure is then multiplied by 100,000 to yield a rate of 50 per 100,000 per year.

Mortality rate

A mortality rate is the number of deaths that occur within a specific population, divided by the size of the population. Only those persons whose death certificate lists cancer as the underlying (i.e., primary) cause of death are included in a cancer mortality rate. Like incidence rates, mortality rates are usually expressed as the number of deaths per 100,000 population.

Age-adjusted rate

Age-adjustment is a simple mathematical procedure that makes it possible to compare rates between populations that have different age distributions, and to compare rates within a single population over time. This edition of the NCR's annual report marks the first in which all incidence and mortality rates were age-adjusted using the United States population in 2000 as the standard. Rates presented in prior editions of this report were age-adjusted using the U.S. population in 1970 as the standard. For this reason, the rates presented in this report can not be compared to those presented in previous reports.

Stage of Disease at Diagnosis

In situ

Cases diagnosed as in situ include tumors that fulfill all of the microscopic criteria for malignancy, but do not invade or penetrate surrounding tissue.

Invasive

Cases diagnosed as invasive include malignant tumors that, unlike in situ tumors, can infiltrate and invade surrounding tissue, and have the ability to spread to distant sites. Invasive tumors are subdivided into three categories:

Localized--A localized invasive tumor has not spread beyond the site of origin.

Regional--A regional invasive tumor has spread by direct extension to immediately adjacent organs or tissues, and/or spread to regional lymph nodes or other regional tissues.

Distant--A distant invasive tumor has spread beyond the immediately adjacent organs or tissues, and/or spread to distant lymph nodes or other distant tissues.

Data Analysis

Most of the incidence and mortality rates presented in this report were calculated for cancer diagnoses and deaths that occurred during 1999 and 1995-1999 combined. The incidence and mortality rates that are based on five years of data should be interpreted as the average annual rates that occurred between 1995 and 1999. Rates for 1999 were calculated using 1999 population estimates developed by the United States Bureau of the Census, while the 1995-1999 rates were calculated using 1997 population estimates also developed by the Census Bureau.

All of the data presented in this report are current through June 1, 2002. However, because some cases diagnosed during or even before 1999 may not yet have been reported to the registry, the incidence data presented in this report should be considered subject to change. **In addition, the incidence data reported in previous editions of this publication should no longer be considered complete.**

With the exception of bladder cancer, all of the site-specific incidence rates in this report were calculated with invasive cases alone, to maintain comparability with statistics from the SEER Program and other cancer registries throughout the United States. For bladder cancer, however, both the NCR and the SEER Program calculate bladder cancer incidence rates with in situ and invasive cases combined. All incidence and mortality rates in this report were calculated per

100,000 population, and were age-adjusted according to the age distribution of the population of the United States in 2000. Statewide rates were also calculated for males and females separately, and for both sexes combined. Rates based on five or fewer events are not presented due to their unreliability. Also, the number of cases for any county with five or fewer cases in a single year are not shown to lessen the chance of indirectly identifying an individual.

In Tables 2 and 5-13, differences between state and county rates were evaluated for statistical significance. Confidence intervals for each rate were calculated using the formula $CI = r \pm (RC \times SE)$, where CI = confidence interval, r = rate, RC = reliability coefficient, and SE = standard error. The standard error for each rate was determined by dividing the rate by the square root of the number of events (cancer diagnoses or deaths). The level of statistical significance used to compare rates (and determine reliability coefficients) was determined for each table using the Bonferroni method. This method divides the overall desired level of statistical significance (in this case, 5%) by the number of statistical comparisons being made. The number of comparisons varied by table since county rates based on five or fewer cases were excluded. As a result, reliability coefficients also varied by table. A statistically significant difference exists and is indicated in those instances where the confidence intervals of a county rate and the state rate do not intersect.

CANCER INCIDENCE IN NEBRASKA

The Nebraska Cancer Registry recorded 8,596 diagnoses of cancer among Nebraskans in 1999. Of this number, 8,042 were invasive cancers and 554 were in situ cancers. The latter figure excludes 173 in situ bladder cancers, which are, as explained on page 5, counted as invasive cases. The 1999 data show a slight decrease from 1998, when 8,607 diagnoses were reported. Excluding in situ cases, Nebraska's 1999 cancer diagnoses translate into an annual incidence rate of 465.4 cases per 100,000 population. Lung, breast, prostate, and colorectal cancers were the most frequently diagnosed cases, accounting for more than half (57.4%) of all invasive diagnoses among Nebraskans in 1999.

Table 1 presents the number and rate of invasive cases diagnosed among Nebraska residents during 1999 and 1995-1999, for all sites combined and for cancers of specific sites. National incidence rate estimates for the year 1999 from SEER are also presented. Comparison of Nebraska and U.S. rates shows that, for all sites combined and for most individual sites, the incidence of cancer among Nebraskans is about equal to or lower than that experienced by Americans as a whole. Table 2 presents the number of invasive cancers diagnosed and the incidence rates for 1999 and 1995-1999 by county of residence, with comparable statewide and national rates included.

TABLE 1
Cancer Incidence (Invasive Cases Only), By Site and Gender
Nebraska (1999 and 1995-1999) and USA (SEER) (1999)

SITE	NEBRASKA 1999						NEBRASKA 1995-1999						U.S. (SEER) 1999		
	MALE NO.	RATE	FEMALE NO.	RATE	TOTAL NO.	RATE	MALE NO.	RATE	FEMALE NO.	RATE	TOTAL NO.	RATE	MALE RATE	FEMALE RATE	TOTAL RATE
All Sites	4,156	548.8	3,886	406.2	8,042	465.4	20,445	548.2	19,151	406.0	39,596	463.4	555.8	422.3	476.1
Oral Cavity & Pharynx	116	15.1	62	6.3	178	10.4	600	16.1	292	6.0	892	10.6	15.2	6.3	10.3
Esophagus	64	8.4	16	1.5	80	4.6	300	8.0	79	1.5	379	4.5	8.3	2.1	4.9
Stomach	47	6.2	40	3.6	87	4.9	296	8.0	190	3.7	486	5.6	11.8	5.9	8.4
Colon & Rectum (Colorectal)	540	72.2	523	50.8	1,063	60.1	2,604	70.9	2,505	49.1	5,109	58.4	63.7	47.1	54.3
Liver & Intrahepatic Duct	38	4.9	9	0.9	47	2.8	182	4.8	103	2.0	285	3.3	8.3	3.1	5.5
Pancreas	88	11.6	83	8.1	171	9.8	415	11.2	408	8.0	823	9.4	12.1	9.5	10.7
Lung & Bronchus	597	78.7	437	44.4	1,034	59.6	3,343	89.4	2,102	44.0	5,445	63.6	81.1	50.7	63.5
Melanoma of Skin	115	14.9	119	13.9	234	14.0	675	17.8	557	12.8	1,232	14.9	21.7	14.2	17.4
Breast	9	1.2	1,217	130.4	1,226	71.5	44	1.2	5,917	129.5	5,961	70.9	1.1	139.1	75.8
Uterine Cervix	--	--	71	8.5	--	--	--	--	373	8.9	--	--	--	8.0	--

TABLE 1
(Continued)
Cancer Incidence (Invasive Cases Only), By Site and Gender
Nebraska (1999 and 1995-1999) and USA (SEER) (1999)

SITE	NEBRASKA 1999						NEBRASKA 1995-1999						U.S. (SEER) 1999		
	MALE NO.	RATE	FEMALE NO.	RATE	TOTAL NO.	RATE	MALE NO.	RATE	FEMALE NO.	RATE	TOTAL NO.	RATE	MALE RATE	FEMALE RATE	TOTAL RATE
Uterine Corpus & Unspecified (Endometrium)	--	--	262	27.7	--	--	--	--	1,243	27.0	--	--	--	25.1	--
Ovary	--	--	156	17.3	--	--	--	--	769	17.1	--	--	--	17.0	--
Prostate Gland	1,329	175.1	--	--	--	--	6,056	162.2	--	--	--	--	174.8	--	--
Urinary Bladder	299	40.7	75	7.4	374	21.0	1,268	34.7	415	8.1	1,683	19.3	36.8	9.8	21.2
Brain & CNS	57	7.2	60	6.5	117	6.9	321	8.3	255	5.7	576	6.9	8.3	5.5	6.8
Hodgkin's Disease	30	3.8	23	2.7	53	3.2	138	3.5	134	3.0	272	3.2	3.0	2.6	2.8
Non-Hodgkin's Lymphoma	146	19.1	145	14.7	291	16.9	848	22.6	769	15.7	1,617	18.9	23.4	15.6	19.1
Multiple Myeloma	47	6.2	42	4.1	89	5.1	236	6.4	197	4.0	433	5.0	6.4	4.0	5.0
Leukemia	111	14.5	102	10.4	213	12.3	576	15.4	486	9.9	1,062	12.3	14.7	8.5	11.2

Total rates are expressed per 100,000 population and are age-adjusted to the 2000 U.S. standard population

Gender-specific rates are expressed per 100,000 male or female population and are age-adjusted to the 2000 U.S. standard population.

TABLE 2
Cancer (All Sites) Incidence, by County of Residence
Nebraska and USA (1999 and 1995-1999)

	<u>1999</u>		<u>1995-99</u>	
	<u># Cases</u>	<u>Rate</u>	<u># Cases</u>	<u>Rate</u>
USA (SEER)	NA	476.1	NA	479.3
NEBRASKA	8,042	465.4	39,596	463.4
<u>COUNTY</u>				
ADAMS	141	416.8	799	464.8
ANTELOPE	38	362.7	205	425.0
ARTHUR	*	*	12	352.8
BANNER	*	*	16	313.4
BLAINE	*	*	18	545.5
BOONE	51	572.1	195	450.6
BOX BUTTE	69	551.5	302	466.5
BOYD	17	356.2	65	▼ 288.2
BROWN	21	399.0	114	423.1
BUFFALO	180	506.2	899	512.8
BURT	58	518.3	274	473.2
BUTLER	52	477.9	228	410.6
CASS	118	489.5	523	442.0
CEDAR	48	393.5	225	▼ 355.4
CHASE	23	415.9	138	499.1
CHERRY	32	435.0	161	411.7
CHEYENNE	51	409.0	250	416.8
CLAY	42	434.8	228	505.0
COLFAX	66	402.7	284	▼ 372.0
CUMING	45	▼ 291.7	253	▼ 360.4
CUSTER	81	494.8	408	482.3
DAKOTA	74	433.9	372	454.1
DAWES	35	386.6	201	434.3
DAWSON	99	378.4	552	426.7
DEUEL	10	319.5	71	464.0
DIXON	31	389.1	154	377.7
DODGE	206	472.1	1083	503.7
DOUGLAS	1974	487.3	9765	▲ 489.6
DUNDY	13	350.8	77	430.0
FILLMORE	46	499.0	206	435.0
FRANKLIN	28	551.8	146	498.0
FRONTIER	15	425.6	86	451.2
FURNAS	35	427.5	199	463.2
GAGE	125	410.5	647	425.7
GARDEN	20	622.7	96	580.7
GARFIELD	15	479.7	89	545.2
GOSPER	17	447.0	60	353.5
GRANT	*	*	17	414.1
GREELEY	21	513.5	101	475.6
HALL	279	515.1	1243	465.3
HAMILTON	39	334.1	269	492.1
HARLAN	22	447.4	138	490.0
HAYES	*	*	16	254.4
HITCHCOCK	27	580.1	131	570.5
HOLT	80	507.4	351	441.8
HOOKER	*	*	26	429.7
HOWARD	32	364.0	168	403.0

TABLE 2
(Continued)
Cancer (All Sites) Incidence, by County of Residence
Nebraska and USA (1999 and 1995-1999)

COUNTY	1999		1995-1999	
	# Cases	Rate	# Cases	Rate
JEFFERSON	48	404.2	286	460.0
JOHNSON	29	397.4	154	421.2
KEARNEY	41	504.5	170	428.0
KEITH	49	443.3	247	464.5
KEYA PAHA	*	*	24	364.7
KIMBALL	28	451.7	152	543.4
KNOX	56	378.4	254	▼ 353.2
LANCASTER	1012	487.0	4857	479.5
LINCOLN	177	482.5	890	486.3
LOGAN	*	*	17	357.7
LOUP	*	*	17	398.5
McPHERSON	*	*	14	355.1
MADISON	180	492.7	947	524.6
MERRICK	53	545.6	227	452.5
MORRILL	35	529.5	172	515.3
NANCE	29	559.2	133	469.4
NEMAHA	49	521.0	212	449.5
NUCKOLLS	37	422.4	203	456.8
OTOE	92	492.2	424	447.6
PAWNEE	33	553.0	126	429.5
PERKINS	13	296.1	83	399.7
PHELPS	37	313.2	259	422.8
PIERCE	38	389.1	201	404.8
PLATTE	179	▲ 691.2	761	▲ 568.6
POLK	22	263.0	146	367.7
RED WILLOW	71	461.7	335	452.9
RICHARDSON	69	496.3	309	440.5
ROCK	9	336.4	55	441.2
SALINE	80	494.3	377	462.8
SARPY	389	446.3	1802	461.7
SAUNDERS	63	▼ 277.7	453	409.8
SCOTTS BLUFF	182	423.5	960	455.5
SEWARD	88	497.8	411	458.0
SHERIDAN	47	529.9	181	394.8
SHERMAN	25	536.5	104	412.7
SIOUX	*	*	15	▼ 165.2
STANTON	28	477.8	112	382.2
THAYER	52	501.3	233	472.8
THOMAS	*	*	20	489.9
THURSTON	26	413.7	141	409.2
VALLEY	23	312.0	145	408.4
WASHINGTON	102	508.7	432	456.7
WAYNE	34	363.3	170	▼ 349.6
WEBSTER	25	432.7	129	417.0
WHEELER	*	*	25	460.0
YORK	76	442.8	349	393.1

NA = not applicable

*Number in a given year and rate not shown if based on five or fewer events.

Rates are expressed per 100,000 population and are age-adjusted to the 2000 U.S. standard population

▼ county rate significantly lower than the state rate

▲ county rate significantly higher than the state rate

CANCER MORTALITY IN NEBRASKA

In 1999, 3,409 Nebraskans died from cancer, a number that translates into a rate of 191.6 cancer deaths per 100,000 population. These figures represent an increase from the state's 1998 figures of 3,278 cancer deaths and an age-adjusted cancer mortality rate of 185.0. Cancer was the second leading cause of mortality in Nebraska in 1999, exceeded only by heart disease, and cancer accounted for more than one of every five (21.9%) resident deaths. Lung, breast, prostate, and colorectal cancers were the most frequently mentioned sites, accounting for 1,759 (51.6%) of Nebraska's cancer deaths in 1999.

Table 3 presents the number and rate of cancer deaths that occurred among Nebraska residents during 1999 and 1995-1999, for all sites combined and for cancers of specific sites. National cancer mortality rates for the year 1999 are also included. Comparison of Nebraska and U.S. rates shows that, for most specific sites and for all sites combined, cancer mortality is about equal or lower for Nebraskans than for Americans in general. Table 4 presents the number of cancer deaths and the mortality rates for 1999 and 1995-1999 by county of residence, with comparable statewide and national rates included.

TABLE 3
Cancer Mortality, By Site and Gender
Nebraska (1999 and 1995-1999) and USA (1999)

SITE	NEBRASKA 1999						NEBRASKA 1995-1999						U.S. 1999		
	MALE NO.	RATE	FEMALE NO.	RATE	TOTAL NO.	RATE	MALE NO.	RATE	FEMALE NO.	RATE	TOTAL NO.	RATE	MALE RATE	FEMALE RATE	TOTAL RATE
All Sites	1,731	233.8	1,678	163.4	3,409	191.6	8,642	236.9	7,959	157.6	16,601	189.3	252.6	169.6	202.8
Oral Cavity & Pharynx	21	2.8	14	1.3	35	2.0	112	3.0	66	1.3	178	2.1	4.2	1.6	2.8
Esophagus	55	7.4	14	1.2	69	3.9	260	7.0	66	1.3	326	3.8	7.7	1.8	4.4
Stomach	21	2.8	34	3.2	55	3.1	188	5.1	126	2.4	314	3.6	6.6	3.3	4.7
Colon & Rectum (Colorectal)	196	26.6	212	19.2	408	22.4	1,026	28.4	1,019	19.2	2,045	23.0	25.4	18.0	21.1
Liver & Intrahepatic Duct	34	4.5	17	1.6	51	2.9	175	4.7	119	2.3	294	3.4	6.5	3.0	4.6
Pancreas	78	10.5	95	9.0	173	9.7	419	11.5	416	8.0	835	9.5	12.3	9.4	10.7
Lung & Bronchus	550	73.3	359	36.5	909	52.1	2,731	73.6	1,651	34.0	4,382	50.8	77.2	40.7	56.0
Melanoma of Skin	31	4.1	20	2.0	51	2.9	156	4.2	77	1.6	233	2.7	3.8	1.8	2.7
Breast	3	0.4	251	24.5	254	14.1	7	0.2	1,334	27.2	1,341	15.4	0.3	27.0	15.3
Uterine Cervix	--	--	25	2.8	--	--	--	--	125	2.8	--	--	--	2.9	--

TABLE 3
(Continued)
Cancer Mortality, By Site and Gender
Nebraska (1999 and 1995-1999) and USA (1999)

SITE	NEBRASKA 1999						NEBRASKA 1995-1999						U.S. 1999		
	MALE NO.	RATE	FEMALE NO.	RATE	TOTAL NO.	RATE	MALE NO.	RATE	FEMALE NO.	RATE	TOTAL NO.	RATE	MALE RATE	FEMALE RATE	TOTAL RATE
Uterine Corpus & Unspecified (Endometrium)	--	--	49	4.6	--	--	--	--	143	2.8	--	--	--	4.1	--
Ovary	--	--	78	7.9	--	--	--	--	414	8.3	--	--	--	8.9	--
Prostate Gland	188	26.9	--	--	--	--	1,011	29.2	--	--	--	--	31.1	--	--
Urinary Bladder	54	7.5	21	1.9	75	4.1	235	6.7	116	2.0	351	3.8	7.6	2.3	4.4
Brain & CNS	51	6.6	45	4.7	96	5.6	247	6.5	205	4.4	452	5.4	5.7	3.9	4.7
Hodgkin's Disease	14	1.8	7	0.7	21	1.2	30	0.8	25	0.5	55	0.6	0.6	0.4	0.5
Non-Hodgkin's Lymphoma	84	11.5	85	8.3	169	9.5	387	10.7	379	7.1	766	8.6	10.4	7.0	8.4
Multiple Myeloma	31	4.2	32	3.2	63	3.6	162	4.4	154	3.0	316	3.6	4.7	3.3	3.9
Leukemia	72	9.7	85	8.0	157	8.7	373	10.3	333	6.4	706	7.9	10.2	6.1	7.8

Total rates are expressed per 100,000 population and are age-adjusted to the 2000 U.S. standard population
Gender-specific rates are expressed per 100,000 male or female population and are age-adjusted to the 2000 U.S. standard population.

TABLE 4
Cancer (All Sites) Mortality, by County of Residence
Nebraska and USA (1999 and 1995-1999)

	<u>1999</u>		<u>1995-1999</u>	
	<u># Deaths</u>	<u>Rate</u>	<u># Deaths</u>	<u>Rate</u>
USA (SEER)	NA	202.8	NA	206.0
NEBRASKA	3,409	191.6	16,601	189.3
<u>COUNTY</u>				
ADAMS	67	190.3	355	195.0
ANTELOPE	25	229.5	101	196.7
ARTHUR	-	-	7	237.4
BANNER	*	*	4	**
BLAINE	*	*	11	341.9
BOONE	18	165.2	80	153.0
BOX BUTTE	26	196.4	130	193.5
BOYD	8	162.8	38	153.0
BROWN	6	101.6	49	160.0
BUFFALO	73	200.8	311	173.1
BURT	26	206.0	120	187.3
BUTLER	26	224.5	109	184.3
CASS	43	181.0	224	189.8
CEDAR	16	124.4	89	▼ 125.2
CHASE	12	212.0	55	201.0
CHERRY	11	142.7	69	164.5
CHEYENNE	24	185.8	110	169.4
CLAY	24	251.0	90	190.5
COLFAX	25	136.3	97	▼ 113.5
CUMING	24	160.9	124	171.8
CUSTER	21	116.7	148	164.8
DAKOTA	30	180.0	163	201.5
DAWES	20	215.2	109	221.4
DAWSON	56	212.9	248	189.5
DEUEL	7	202.1	37	203.1
DIXON	10	103.7	61	131.8
DODGE	94	203.1	426	186.5
DOUGLAS	869	218.4	4150	▲ 211.0
DUNDY	9	236.0	36	193.2
FILLMORE	19	181.6	92	176.0
FRANKLIN	13	180.4	56	164.1
FRONTIER	*	*	31	155.8
FURNAS	22	261.5	87	179.8
GAGE	62	193.0	305	187.0
GARDEN	8	174.9	38	194.9
GARFIELD	*	*	39	238.4
GOSPER	*	*	21	125.5
GRANT	-	-	6	150.2
GREELEY	10	231.1	42	190.7
HALL	98	176.0	535	195.3
HAMILTON	22	182.7	117	202.8
HARLAN	17	286.1	62	198.6
HAYES	*	*	17	259.6
HITCHCOCK	14	276.5	48	191.1
HOLT	26	156.6	141	168.8
HOOKER	-	-	10	128.3
HOWARD	17	181.3	74	169.9

TABLE 4
(Continued)
Cancer (All Sites) Mortality, by County of Residence
Nebraska and USA (1999 and 1995-1999)

<u>COUNTY</u>	<u>1999</u>		<u>1995-1999</u>	
	<u># Deaths</u>	<u>Rate</u>	<u># Deaths</u>	<u>Rate</u>
JEFFERSON	18	136.3	128	192.2
JOHNSON	14	192.5	86	226.6
KEARNEY	19	226.0	85	211.7
KEITH	21	175.4	98	176.4
KEYA PAHA	*	*	12	166.8
KIMBALL	10	149.9	58	205.8
KNOX	23	138.2	116	141.6
LANCASTER	419	201.9	1933	191.9
LINCOLN	79	206.0	371	196.2
LOGAN	-	-	6	126.3
LOUP	*	*	12	285.7
McPHERSON	*	*	4	**
MADISON	73	195.7	362	194.6
MERRICK	19	163.6	104	189.4
MORRILL	13	176.9	71	192.9
NANCE	10	173.8	49	174.0
NEMAHA	17	171.1	113	223.4
NUCKOLLS	23	233.1	110	225.8
OTOE	36	174.0	204	198.2
PAWNEE	7	125.5	53	167.4
PERKINS	8	171.4	45	210.0
PHELPS	21	163.6	116	173.3
PIERCE	21	201.2	83	161.4
PLATTE	69	273.0	294	222.9
POLK	13	141.9	74	164.9
RED WILLOW	41	266.5	148	192.7
RICHARDSON	25	174.6	132	176.9
ROCK	*	*	19	147.3
SALINE	27	156.2	146	163.9
SARPY	117	145.1	627	179.9
SAUNDERS	44	181.1	214	182.4
SCOTTS BLUFF	81	190.1	403	183.4
SEWARD	37	194.3	172	181.2
SHERIDAN	17	179.0	88	177.8
SHERMAN	7	134.6	49	179.4
SIOUX	*	*	16	175.0
STANTON	11	188.5	42	140.2
THAYER	21	182.1	85	151.6
THOMAS	*	*	9	230.9
THURSTON	15	213.5	69	192.8
VALLEY	12	131.3	73	180.9
WASHINGTON	35	173.9	172	177.8
WAYNE	16	164.1	66	▼ 127.0
WEBSTER	9	113.0	55	152.5
WHEELER	*	*	14	268.5
YORK	29	149.6	143	152.8

NA = not applicable

*Number in a given year and rate not shown if based on five or fewer events.

**Rate for combined years not shown if based on five or fewer events.

Rates are expressed per 100,000 population and are age-adjusted to the 2000 U.S. standard population

▼ county rate significantly lower than the state rate

▲ county rate significantly higher than the state rate

INCIDENCE AND MORTALITY FOR SELECTED SITES

Lung

Although lung cancer was only the fourth most frequently diagnosed cancer among Nebraskans in 1999, it was the year's leading cause of cancer mortality, accounting for more than 25% of the state's cancer deaths. Long the leading cause of cancer deaths among Nebraska men, lung cancer overtook breast cancer in 1993 to become the leading cause of cancer deaths among Nebraska women as well. In recent years, lung cancer has averaged nearly 1,100 diagnoses and more than 850 deaths per year among Nebraskans.

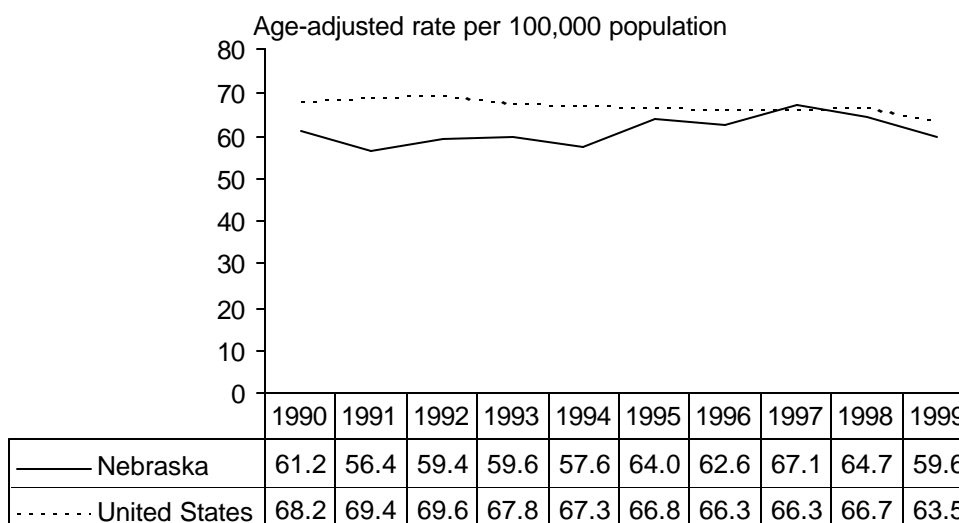
Cigarette smoking is the major cause of lung cancer and is estimated to cause 85% of lung cancer deaths. People who smoke two or more packs of cigarettes per day are 15 to 25 times more likely to die from lung cancer than non-smokers. Quitting smoking reduces the risk of dying from lung cancer,

although it takes 10-15 years for an ex-smoker's risk to decline to the level of a lifelong non-smoker.

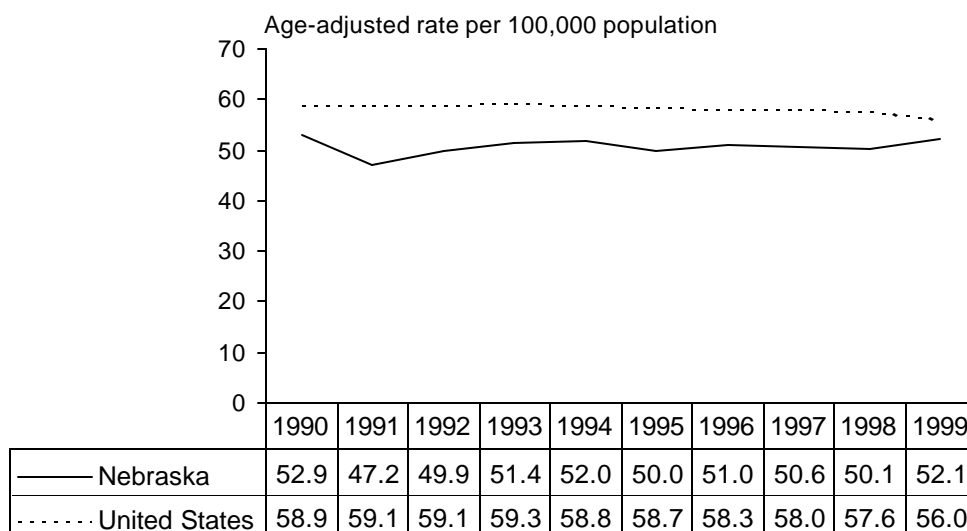
Despite its heavy toll in human lives, both lung cancer incidence and mortality remain lower for Nebraskans than for Americans in general. In fact, the lung cancer mortality rate for the State of Nebraska has been consistently lower than the U.S. rate for several decades. This is undoubtedly attributable to Nebraska's traditionally low smoking prevalence rate, although in recent years the difference between smoking rates in Nebraska and the rest of the nation has almost completely disappeared.

Lung cancer incidence and mortality statistics by county of residence are presented in Appendix I (Table 5).

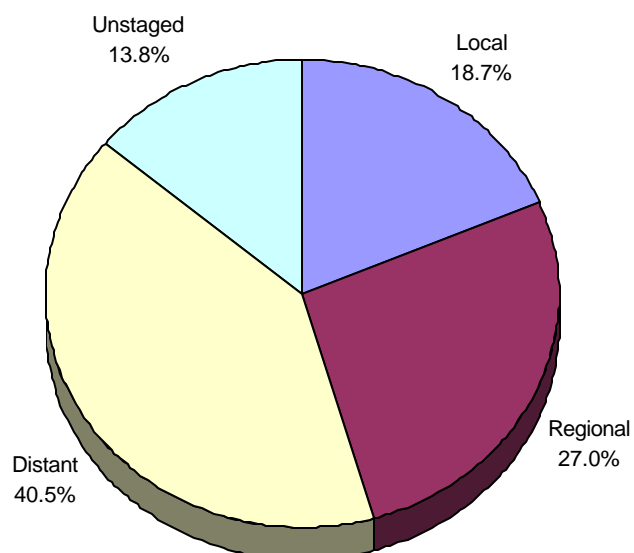
**Lung Cancer Incidence
Rates, By Year**
Nebraska and United States (SEER) (1990-1999)



**Lung Cancer Mortality
Rates, By Year**
Nebraska and United States (1990-1999)



**Lung Cancer Incidence
% of Cases, By Stage of Disease at Diagnosis**
Nebraska (1995-1999)



Breast (Female only)

Cancer of the breast is the most common malignancy diagnosed among women and the second most frequent cause of female cancer deaths. In Nebraska, nearly 6,000 women were diagnosed with invasive breast cancer and over 1,300 women died from it between 1995 and 1999. During the decade of the 1990s, the rate of breast cancer deaths declined substantially (by nearly 30% in Nebraska and about 20% nationally), while at the same time, the rate of breast cancer diagnoses increased. This trend is probably due to increased use of mammography and clinical breast examination (CBE) for breast cancer screening. As more women are screened, more tumors are found, but because they are more likely to be early-stage tumors, they are more treatable and less likely to result in death.

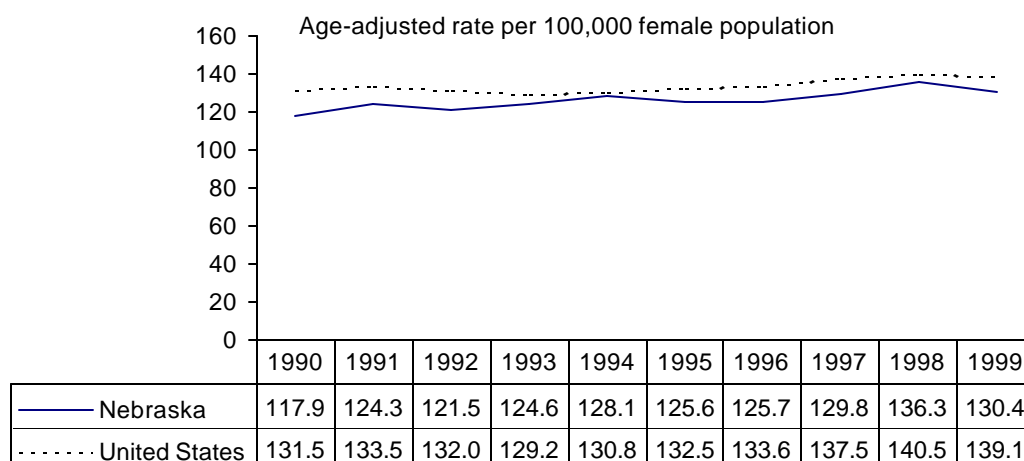
Age is one of the strongest risk factors for breast cancer. Among Nebraska women who were diagnosed with breast cancer during 1995-1999, fewer than one in five cases were detected among women under 50, and more than half were diagnosed among women 65 and older. Other risk factors for the disease include a personal or family history of breast cancer, some forms

of benign breast disease, early menstruation, late menopause, and never having children or having a first-born child after the age of 30.

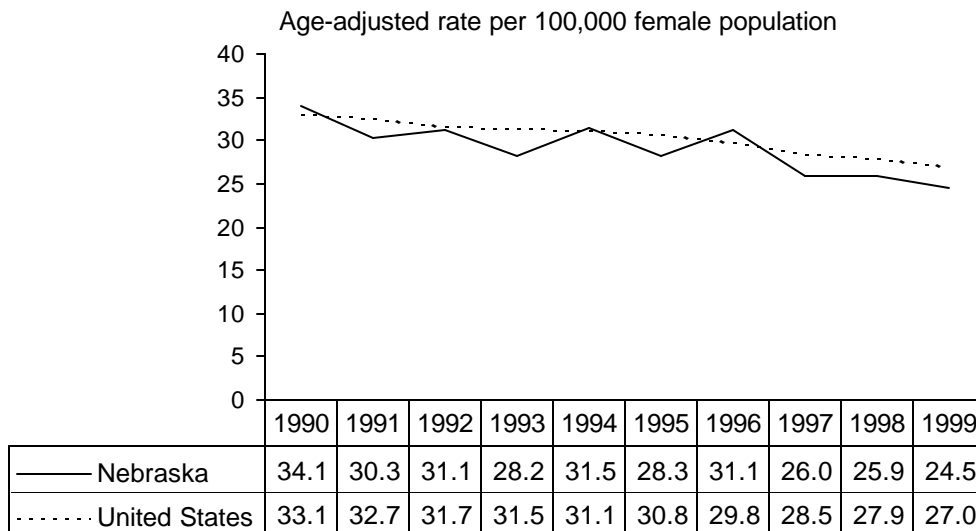
To date, knowledge about the risk factors for breast cancer has not translated into practical ways to prevent it from occurring. Early diagnosis and treatment remain the most effective methods for saving lives that the disease might otherwise claim. Periodic screening with mammography and CBE is the surest way to find breast tumors when they are most likely to respond to treatment. The American Cancer Society (ACS) recommends that women age 40 and older should have an annual screening mammogram and CBE, and should perform a monthly breast self-examination (BSE). The ACS also recommends that women 20 to 39 years of age should have a CBE every three years, and should perform monthly BSE. Women with a strong family history of breast cancer should talk to their doctor about when to begin screening.

Female breast cancer incidence and mortality statistics by county of residence are presented in Appendix II (Table 6).

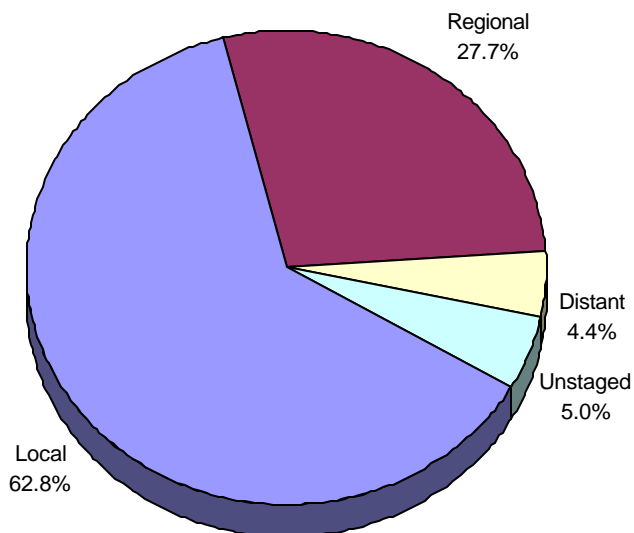
**Female Breast Cancer Incidence
Rates, By Year**
Nebraska and United States (SEER) (1990-1999)



**Female Breast Cancer Mortality
Rates, By Year**
Nebraska and United States (1990-1999)



**Female Breast Cancer Incidence
% of Cases, By Stage of Disease at Diagnosis**
Nebraska (1995-1999)



Colorectal (Colon and Rectum)

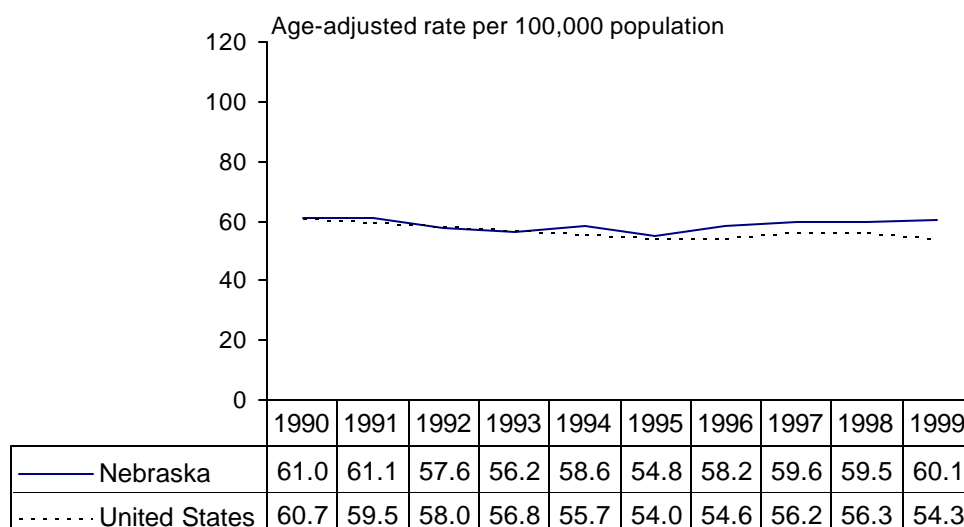
In 1999, colorectal cancer was the third most frequently diagnosed cancer among Nebraskans, accounting for over 1,000 new cases. It was also the second leading cause of cancer mortality in the state, accounting for over 400 deaths.

The risk of developing colorectal cancer generally increases with age. In Nebraska, over 70% of the persons diagnosed with colorectal cancer during 1995-1999 were 65 years of age or older at the time of diagnosis. Other risk factors for colorectal cancer include a personal history of inflammatory bowel disease, a personal or family history of colorectal cancer or polyps, and certain hereditary syndromes. Potentially modifiable risk factors include lack of regular physical activity, low intake of fruits and vegetables, obesity, and alcohol consumption. Some recent studies have also suggested that calcium, selenium, folic acid, Vitamin E, estrogen replacement

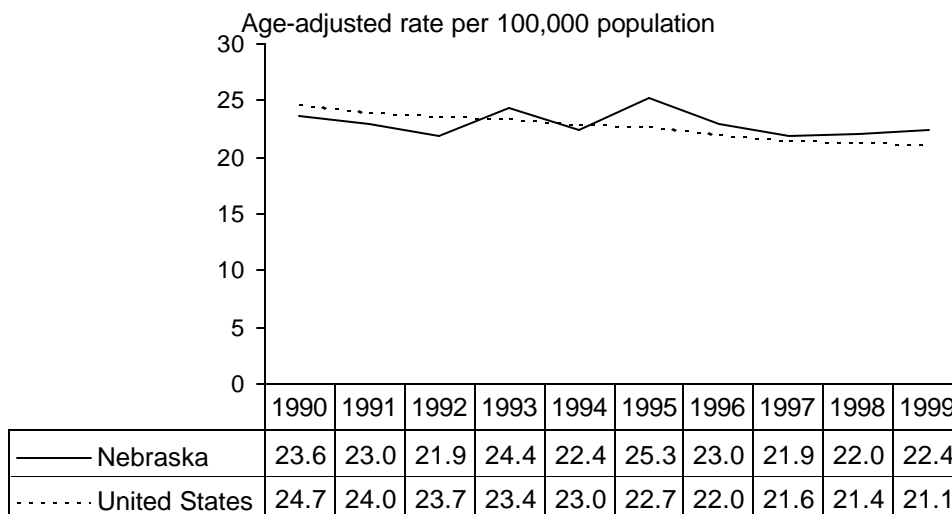
At present, screening to detect asymptomatic colorectal polyps and tumors remains the best method for reducing the number of new colorectal cancer cases and deaths. Several scientific organizations now offer guidelines recommending specific techniques and intervals for colorectal cancer screening. Current guidelines agree that, for people of average risk (i.e., no personal or family history of colorectal cancer or related conditions), screening should begin at age 50 and should include an annual fecal occult (stool) blood test and flexible sigmoidoscopy at least once every five years. Some guidelines also recommend the options of screening via colonoscopy or barium x-ray enema.

Colorectal cancer incidence and mortality statistics by county of residence are presented in Appendix III (Table 7).

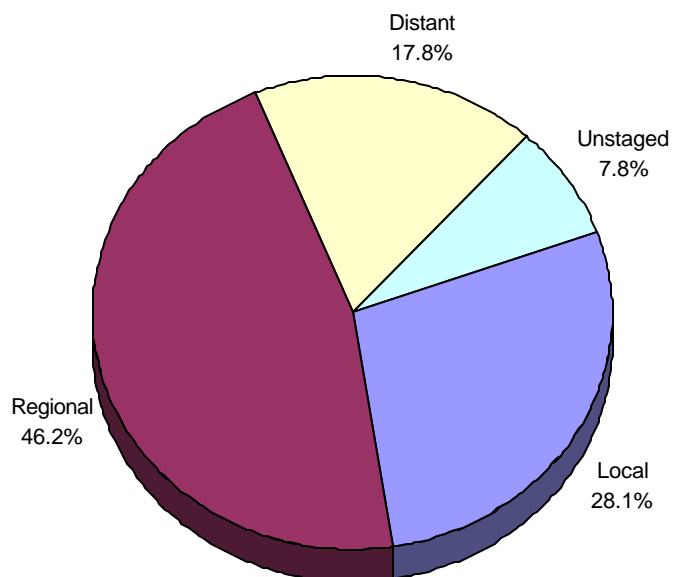
**Colorectal Cancer Incidence
Rates, By Year**
Nebraska and United States (SEER) (1990-1999)



**Colorectal Cancer Mortality
Rates, By Year**
Nebraska and United States (1990-1999)



**Colorectal Cancer Incidence
% of Cases, By Stage of Disease at Diagnosis**
Nebraska (1995-1999)



Prostate

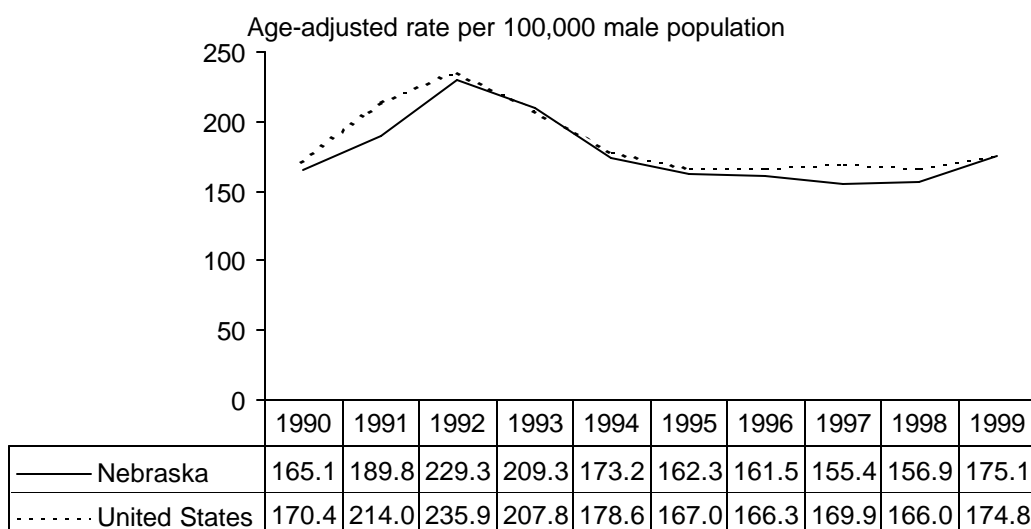
Prostate cancer is currently the most frequently diagnosed cancer among men, accounting for nearly one of every three male cancer diagnoses in Nebraska. Although survival rates are quite high (nearly 90% of all men with prostate cancers are still alive five years after diagnosis, according to national data), it is also the third leading cause of male cancer deaths, and was responsible for over 1,000 deaths among Nebraska men between 1995 and 1999.

Little is known about the risk factors for prostate cancer. However, there are two well-known high-risk groups: the elderly (men 65 and older account for over 80% of all diagnoses, both statewide and nationally) and African-Americans. There also is some evidence that family history of the disease, dietary fat consumption, and occupational exposure to cadmium may each increase the risk of prostate cancer.

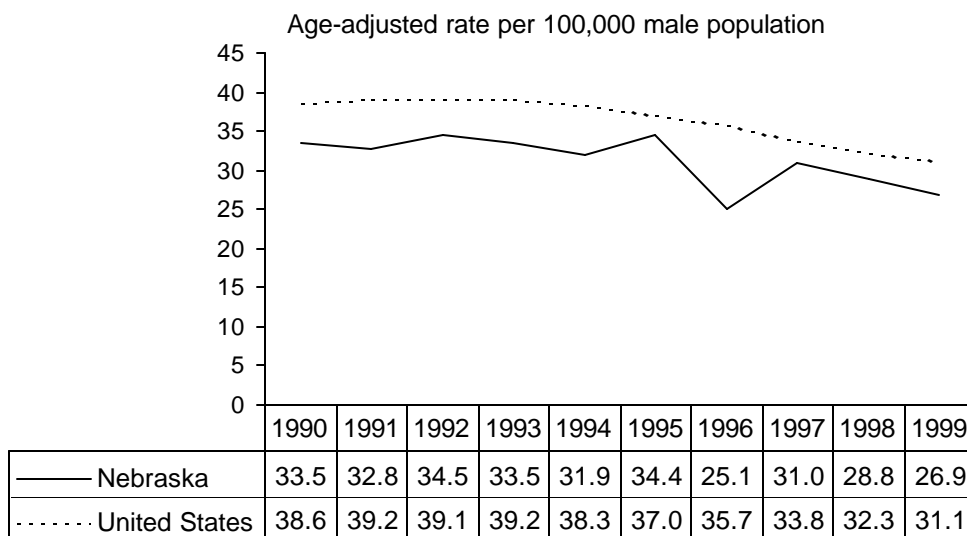
Although screening can reduce mortality for some types of cancer (e.g., breast, cervical, colorectal), screening for prostate cancer remains controversial, with many scientists maintaining that its effectiveness is still unproven. The American Cancer Society recommends that health care providers offer the prostate-specific antigen test and a digital rectal exam annually to men age 50 and older who have at least a 10-year life expectancy. Men at higher risk (African-Americans and those who have a first-degree relative who was diagnosed with prostate cancer at a young age) should begin testing at age 45. Patients should be given information about the benefits and limitations of testing so that they can make an informed decision.

Prostate cancer incidence and mortality statistics by county of residence are presented in Appendix IV (Table 8).

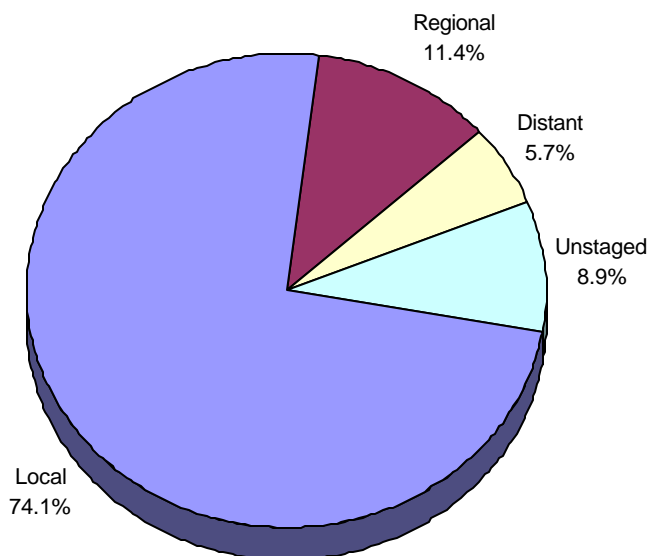
**Prostate Cancer Incidence
Rates, By Year**
Nebraska and United States (SEER) (1990-1999)



**Prostate Cancer Mortality
Rates, By Year**
Nebraska and United States (1990-1999)



**Prostate Cancer Incidence
% of Cases, By Stage of Disease at Diagnosis**
Nebraska (1995-1999)



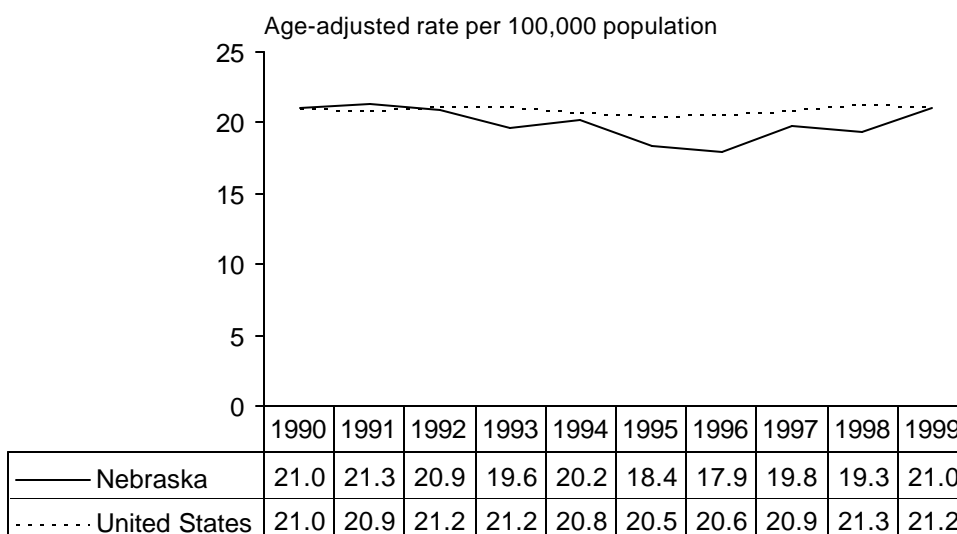
Urinary Bladder

Between 1995 and 1999, nearly 1,700 Nebraskans were diagnosed with bladder cancer. Bladder cancer occurs far more frequently among men than women (by about a 3:1 ratio, according to Nebraska data), and now ranks fourth as the most common site of cancer diagnoses among Nebraska men. However, deaths from the disease are much less frequent (351 Nebraskans died from it during 1995-1999), which is the result of a high percentage of early-stage diagnoses and the existence of effective treatments. Survival prospects have improved considerably in recent decades, to the point where the most current U.S. data show that over 80% of all persons are still alive five years after being diagnosed with bladder cancer.

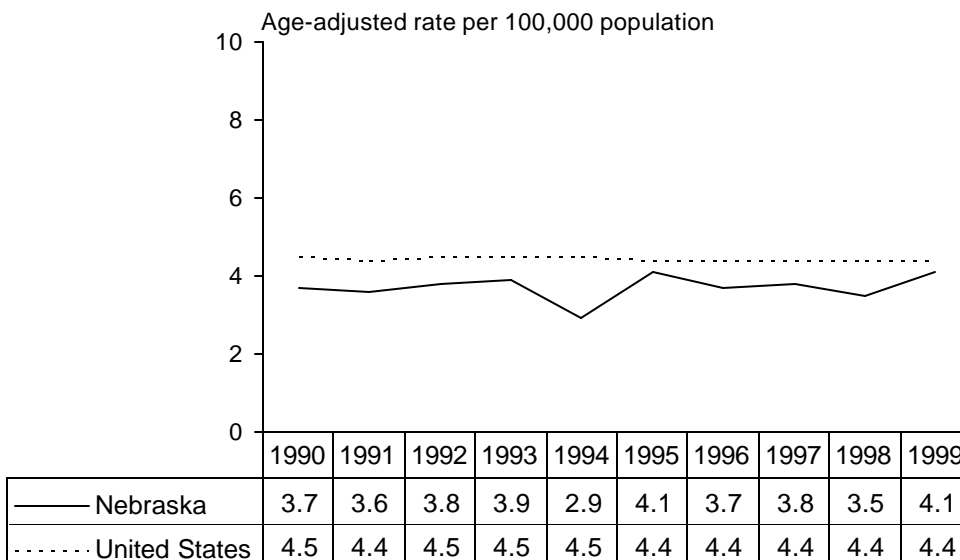
Cigarette smoking is the most important known risk factor for bladder cancer. Smokers develop bladder cancer two to three times more often than non-smokers, and estimates suggest that about one-third of all cases are attributable to smoking. Occupational exposures to certain substances used in the manufacture of dyes (benzidine and 2-naphthylamine) also increase the risk of bladder cancer, as does employment in the rubber and leather industries.

Urinary bladder cancer incidence and mortality statistics by county of residence are presented in Appendix V (Table 9).

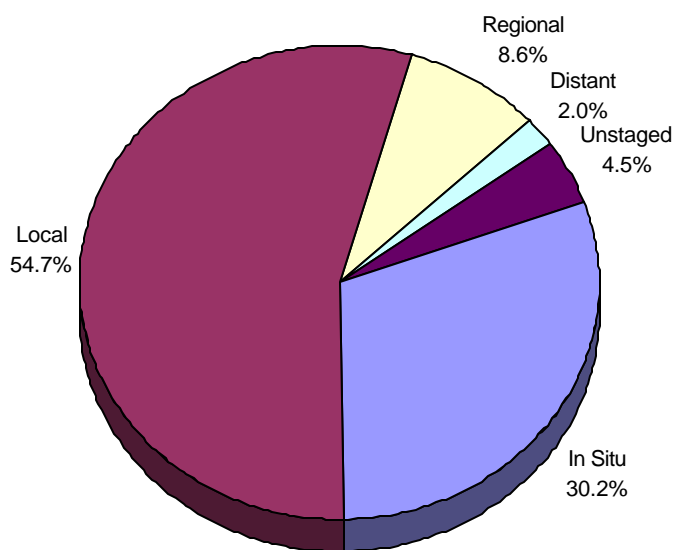
Bladder Cancer Incidence
Rates, By Year
Nebraska and United States (SEER) (1990-1999)



**Bladder Cancer Mortality
Rates, By Year**
Nebraska and United States (1990-1999)



**Bladder Cancer Incidence
% of Cases, By Stage of Disease at Diagnosis**
Nebraska (1995-1999)



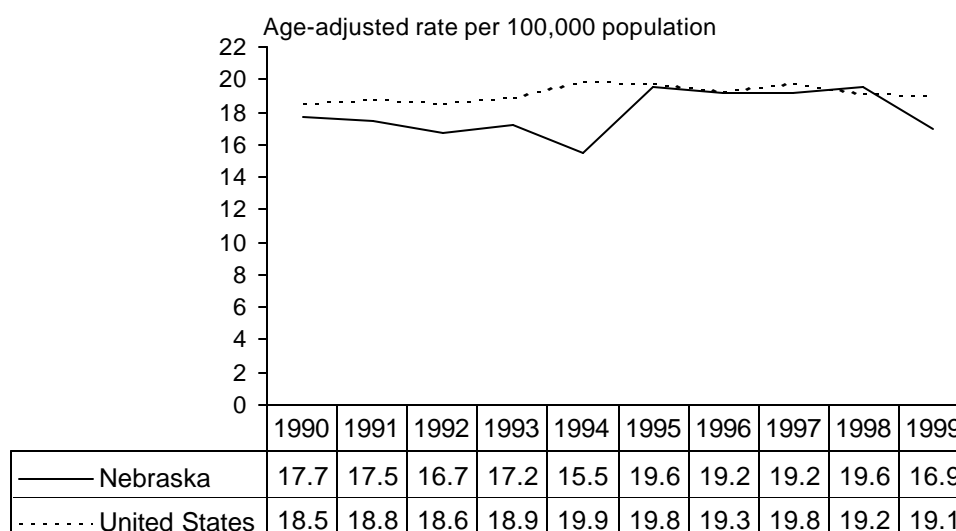
Non-Hodgkin's Lymphoma

Lymphomas are cancers that affect the white blood cells of the immune system, and are usually classified as either Hodgkin's Disease or non-Hodgkin's lymphoma. Non-Hodgkin's lymphoma is by far the more common disorder of the two, accounting for over 1,600 diagnoses and over 700 deaths among Nebraskans between 1995 and 1999. Incidence is tied closely to age, with more than six of every ten Nebraska cases diagnosed among people 65 years of age and older. National statistics indicate that the incidence rate for non-Hodgkin's lymphoma has increased by about 80% since the mid-1970s, and some of this increase is related to the appearance of AIDS. However, both state and national data show that deaths attributable to non-Hodgkin's lymphoma have been increasing since at least 1950, which indicates that factors other than AIDS are also responsible.

The causes of non-Hodgkin's lymphoma are unknown, although there is evidence that viral exposures and reduced immune function are associated with the disease. People whose immune systems have been suppressed by drugs, particularly those who have received an organ transplant, have an extraordinarily high incidence of non-Hodgkin's lymphoma, and it also occurs more frequently among people with congenital and acquired immunologic disorders, including AIDS. The increased incidence of the disease among people with congenital disorders of the immune system suggests that hereditary influences may also be a risk factor. Some studies have found that occupational exposure to certain herbicides are a risk factor as well.

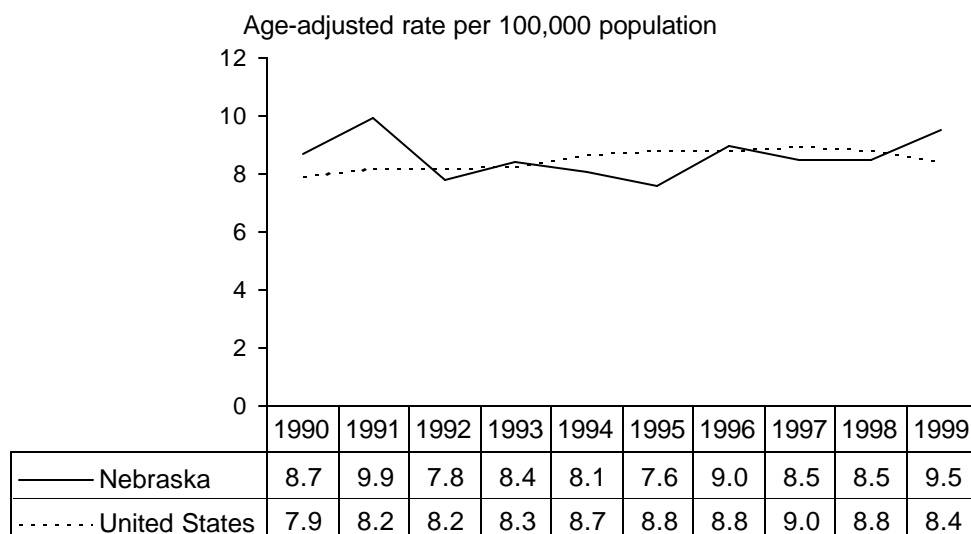
Non-Hodgkin's lymphoma incidence and mortality statistics are presented in Appendix VI (Table 10).

**Non-Hodgkin's Lymphoma Incidence
Rates, By Year**
Nebraska and United States (SEER) (1990-1999)

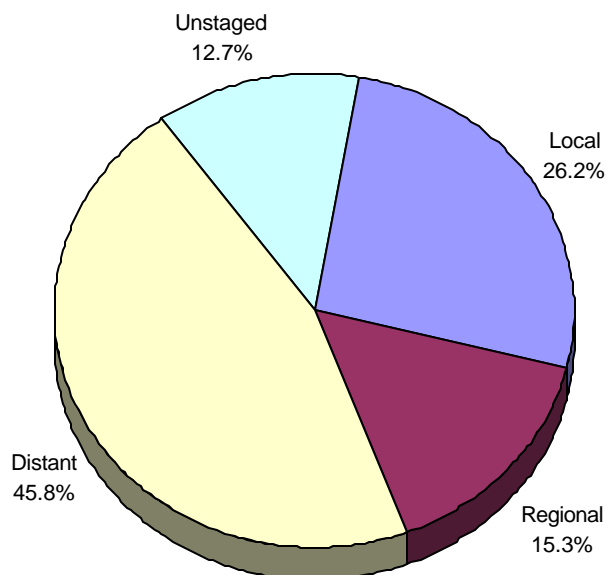


Non-Hodgkin's Lymphoma Mortality Rates, By Year

Nebraska and United States (1990-1999)



Non-Hodgkin's Lymphoma Incidence % of Cases, By Stage of Disease at Diagnosis Nebraska (1995-1999)



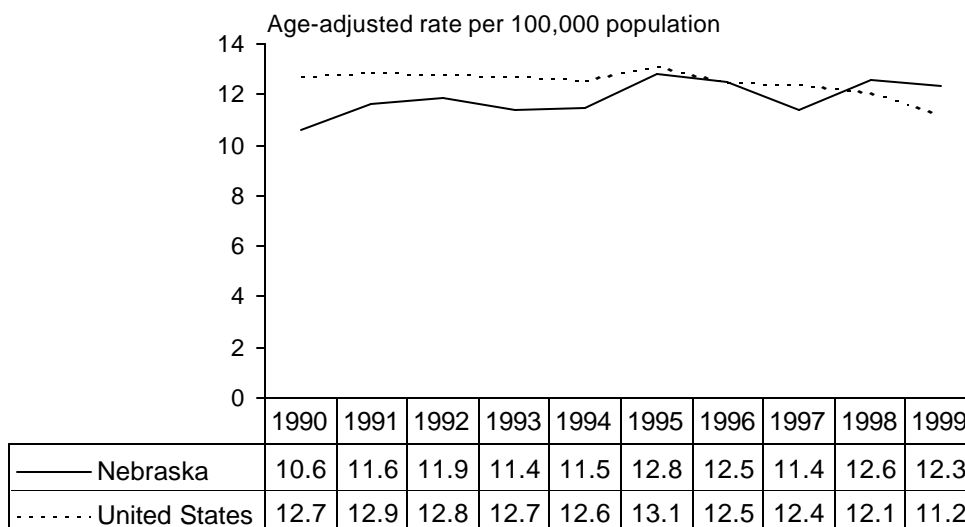
Leukemia

Between 1995 and 1999, 1,062 Nebraskans were diagnosed with leukemia, and 706 Nebraskans died from it. Although it is sometimes thought of as a children's disease, data from the NCR show that this is only partly true. Like most cancers, the incidence of leukemia increases with age: in fact, about six of every ten Nebraska cases that occurred between 1995 and 1999 were 65 or older at diagnosis. During the same years, however, leukemia was also the most common type of cancer among Nebraska children, accounting for about one-third of all cases diagnosed among Nebraskans under the age of 15. Acute lymphocytic leukemia is the most common type of leukemia among children, while acute myelocytic and chronic lymphocytic are the most common types among adults.

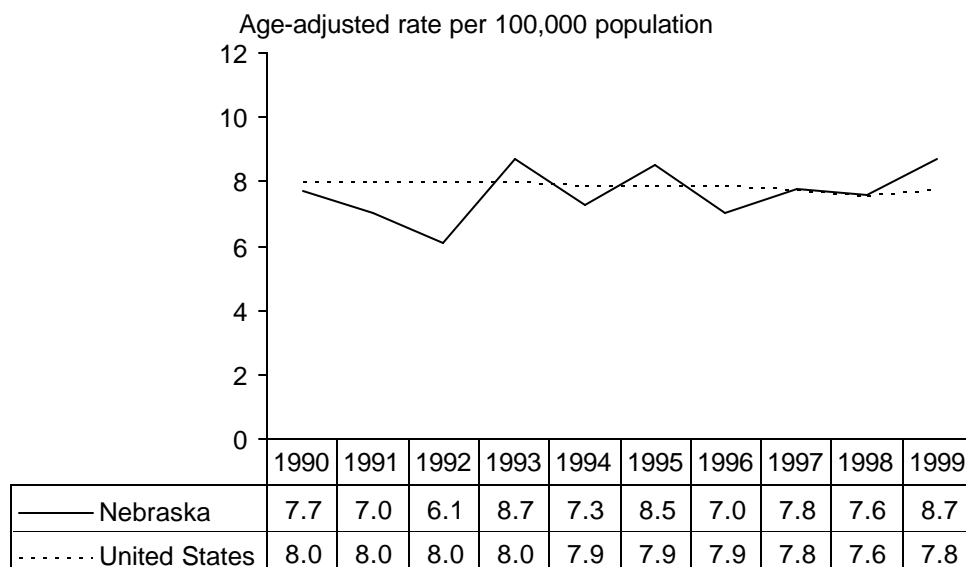
The major causes of most types of leukemia are unknown. Nevertheless, several risk factors have been identified, and include genetic abnormalities (such as Down's syndrome), exposure to ionizing radiation, and workplace exposure to benzene and other related solvents. Adult T-cell leukemia is strongly associated with infection by a retrovirus, HTLV-I (human T-lymphotropic virus, type I). Some evidence also suggests that cigarette smoking is a risk factor for certain types of leukemia.

Leukemia incidence and mortality statistics by county of residence are presented in Appendix VII (Table 11).

**Leukemia Incidence
Rates, By Year**
Nebraska and United States (SEER) (1990-1999)



**Leukemia Mortality
Rates, By Year**
Nebraska and United States (1990-1999)



NOTE: Unlike most other cancers, leukemia diagnoses are not classified according to the stage of disease scheme used elsewhere in this report.

Oral Cavity and Pharynx

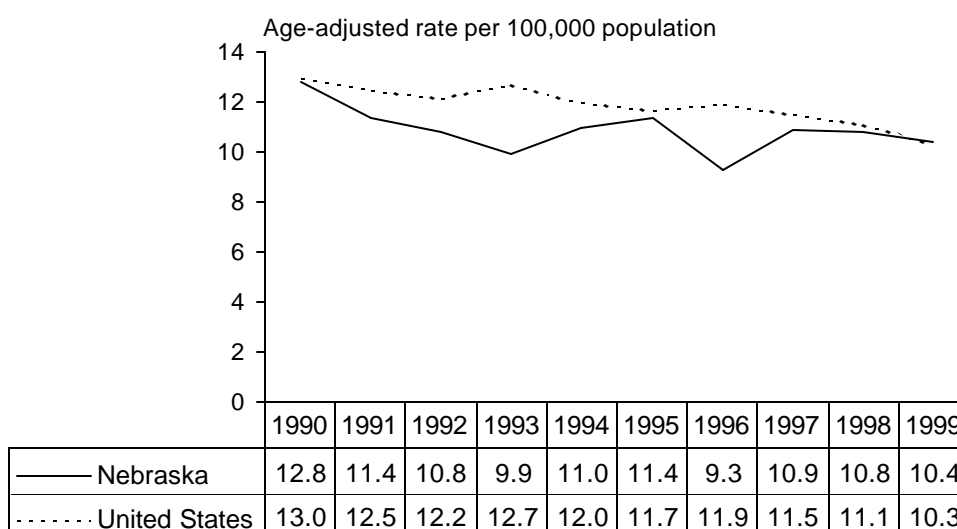
Cancers of the oral cavity and pharynx (i.e., mouth and throat) accounted for close to 900 diagnoses and nearly 200 deaths among Nebraskans between 1995 and 1999. Both state and national data show that it occurs more than twice as often among men than women, and in Nebraska it currently ranks seventh as the most common site for male cancer diagnoses. During the decade of the 1990s, the rates of diagnosis and death from cancers of the oral cavity and pharynx declined by about 20%, both in Nebraska and throughout the United States.

Tobacco use in all its forms--smoking, chewing, and dipping--is the major risk factor for cancers of the oral cavity and pharynx.

These cancers most often develop at the site directly exposed to tobacco, with cancers of the gum and cheek developing most frequently among snuff-dippers; cancer of the throat developing most frequently among cigarette smokers; and cancer of the lip developing most frequently among pipe-smokers. Alcohol is also a known risk factor for cancers of the oral cavity and pharynx, with the risk especially high for those who both smoke and drink.

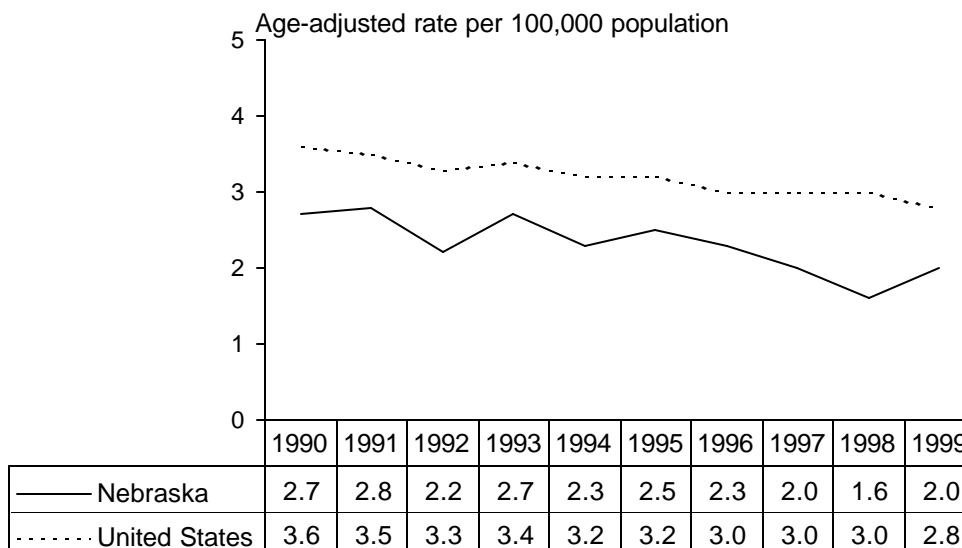
Oral cavity and pharynx cancer incidence and mortality statistics by county of residence are presented in Appendix VIII (Table 12).

**Oral Cavity & Pharynx Cancer Incidence
Rates, By Year**
Nebraska and United States (SEER) (1990-1999)

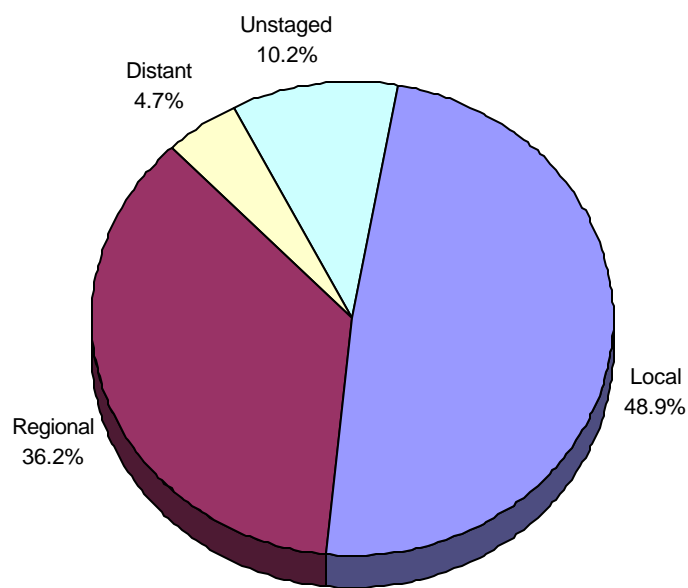


Oral Cavity & Pharynx Cancer Mortality Rates, By Year

Nebraska and United States (1990-1999)



Oral Cavity & Pharynx Cancer Incidence % of Cases, By Stage of Disease at Diagnosis Nebraska (1995-1999)



Melanoma of the Skin

There are several different types of skin cancer, but melanomas are the most serious. Nationally, melanomas comprise only about 5% of all skin cancer diagnoses but about 75% of all skin cancer deaths. In Nebraska, melanomas of the skin accounted for 1,232 diagnoses and 233 deaths between 1995 and 1999. Increasing numbers of melanoma diagnoses and deaths have occurred both statewide and nationally in recent decades.

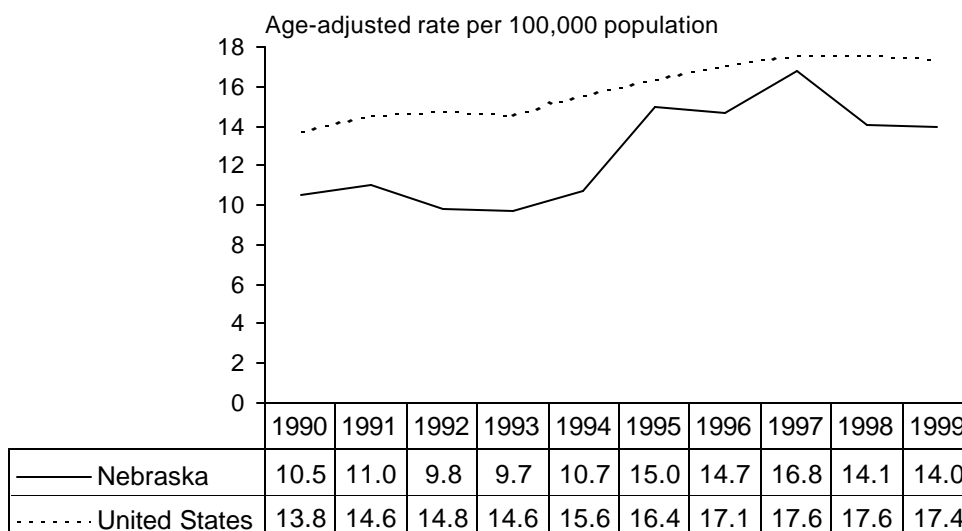
Melanoma is related to exposure to ultraviolet radiation (most of which comes from the sun), particularly exposures during childhood that resulted in severe sunburns. The risk of developing melanoma is particularly high among people with light skin. Sun exposure is not the only risk factor, however, as family history of melanoma and the presence of dysplastic

nevi (large moles with irregular coloration and shape) also carry some increased risk.

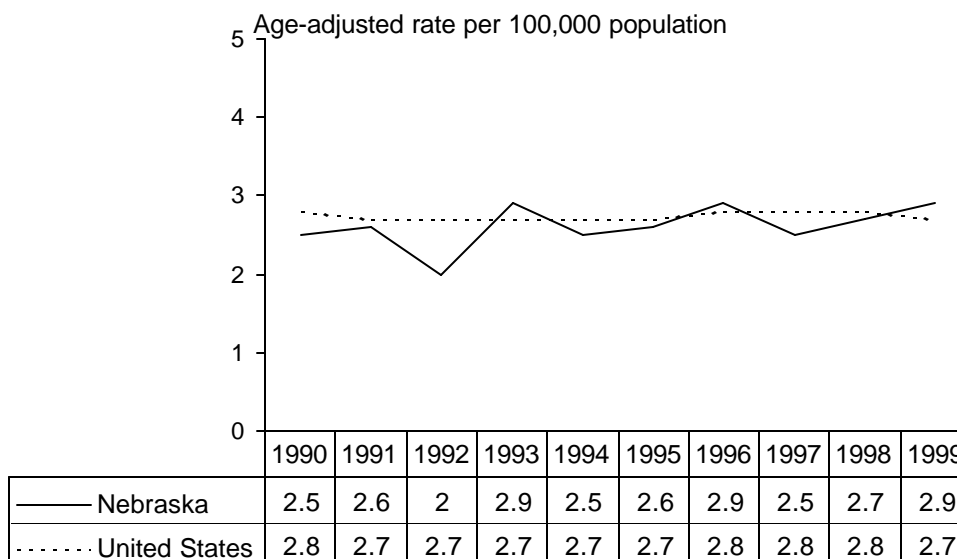
Skin melanomas are among the most preventable and treatable of all cancers. Wearing protective clothing and using sunscreen are the best methods for preventing the disease, and children in particular should have such protection. In addition, early detection can greatly reduce the risk of melanoma mortality. Recognition of changes in skin growths or the appearance of new growths is the best way to find melanomas early in their development. The American Cancer Society suggests that adults should practice skin self-examination regularly, and that suspicious lesions should be evaluated promptly by a physician.

Melanoma of the skin incidence and mortality statistics by county of residence are presented in Appendix IX (Table 13).

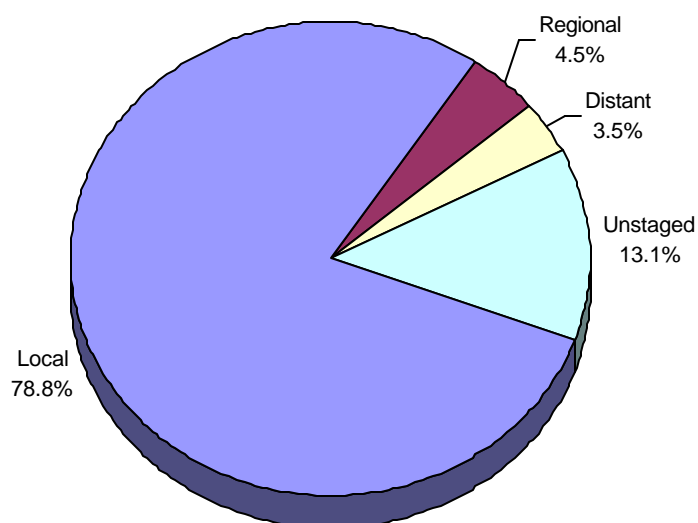
**Melanoma of Skin Incidence
Rates, By Year**
Nebraska and United States (SEER) (1990-1999)



**Melanoma of Skin Mortality
Rates, By Year**
Nebraska and United States (1990-1999)



**Melanoma of Skin Incidence
% of Cases, By Stage of Disease at Diagnosis**
Nebraska (1995-1999)



APPENDICES

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TABLE 5

Lung Cancer Incidence and Mortality
By County of Residence, Nebraska and USA (1995-1999)

	<u>Incidence</u>		<u>Mortality</u>	
	<u># Cases</u>	<u>Rate</u>	<u># Deaths</u>	<u>Rate</u>
USA (SEER)	NA	65.9	NA	57.7
NEBRASKA	5,445	63.6	4,382	50.8
<u>COUNTY</u>				
ADAMS	135	77.1	109	61.9
ANTELOPE	21	41.2	26	50.2
ARTHUR	-	-	2	*
BANNER	1	*	1	*
BLAINE	2	*	3	*
BOONE	23	49.6	22	43.5
BOX BUTTE	36	56.0	25	40.1
BOYD	6	26.0	8	34.7
BROWN	8	▼ 27.5	9	29.6
BUFFALO	104	61.1	86	49.2
BURT	40	64.0	31	46.5
BUTLER	24	40.8	19	31.3
CASS	76	64.3	69	58.4
CEDAR	21	▼ 31.9	17	▼ 25.4
CHASE	18	62.2	14	52.1
CHERRY	21	52.4	17	43.5
CHEYENNE	24	36.1	31	46.9
CLAY	30	66.2	24	50.1
COLFAX	29	39.1	20	▼ 24.8
CUMING	23	▼ 34.7	23	32.4
CUSTER	47	52.3	33	37.9
DAKOTA	67	83.8	45	56.2
DAWES	26	54.0	28	56.1
DAWSON	82	62.6	62	47.5
DEUEL	6	32.9	10	58.7
DIXON	18	41.9	13	28.7
DODGE	142	63.5	106	46.3
DOUGLAS	1610	▲ 81.3	1239	▲ 62.8
DUNDY	4	*	7	33.9
FILLMORE	26	57.3	23	46.7
FRANKLIN	21	68.7	17	53.3
FRONTIER	7	37.4	8	44.7
FURNAS	26	60.2	19	43.5
GAGE	75	46.9	68	42.9
GARDEN	12	65.7	10	46.9
GARFIELD	7	35.4	2	*
GOSPER	6	31.4	2	*
GRANT	1	*	2	*
GREELEY	11	52.9	11	48.7
HALL	201	73.9	157	57.4
HAMILTON	30	53.6	28	49.9
HARLAN	17	58.8	21	68.9
HAYES	5	*	3	*
HITCHCOCK	19	79.3	18	76.7
HOLT	38	45.3	36	41.5
HOOKER	3	*	1	*
HOWARD	22	54.3	20	49.9

TABLE 5
(Continued)
 Lung Cancer Incidence and Mortality
 By County of Residence, Nebraska and USA (1995-1999)

<u>COUNTY</u>	<u>Incidence</u>		<u>Mortality</u>	
	<u># Cases</u>	<u>Rate</u>	<u># Deaths</u>	<u>Rate</u>
JEFFERSON	29	43.5	30	44.8
JOHNSON	25	68.8	22	55.4
KEARNEY	24	65.4	22	60.6
KEITH	30	53.2	24	41.8
KEYA PAHA	2	*	2	*
KIMBALL	16	55.8	19	66.8
KNOX	30	39.8	25	32.6
LANCASTER	614	61.9	493	49.6
LINCOLN	129	67.8	103	53.8
LOGAN	-	-	-	-
LOUP	2	*	3	*
McPHERSON	1	*	2	*
MADISON	112	63.7	88	50.6
MERRICK	29	59.1	34	68.9
MORRILL	27	79.0	19	52.7
NANCE	19	70.3	13	49.0
NEMAHA	36	75.4	36	72.5
NUCKOLLS	25	52.7	26	52.4
OTOE	42	45.8	38	38.4
PAWNEE	19	68.0	12	43.1
PERKINS	17	88.8	14	71.3
PHELPS	30	50.2	23	37.6
PIERCE	18	38.2	16	32.6
PLATTE	98	75.4	75	57.6
POLK	22	53.1	12	25.8
RED WILLOW	54	70.9	42	54.6
RICHARDSON	39	51.7	26	36.9
ROCK	8	61.5	7	59.2
SALINE	44	55.2	37	46.4
SARPY	231	63.7	164	45.8
SAUNDERS	68	60.2	62	53.9
SCOTTS BLUFF	126	58.1	106	47.8
SEWARD	50	54.5	42	45.3
SHERIDAN	23	47.5	16	31.1
SHERMAN	15	51.9	6	19.5
SIOUX	5	*	5	*
STANTON	13	45.6	9	31.7
THAYER	19	34.6	17	30.2
THOMAS	2	*	-	-
THURSTON	23	64.3	18	50.5
VALLEY	18	49.7	17	42.2
WASHINGTON	60	63.5	38	39.5
WAYNE	21	42.6	15	30.1
WEBSTER	10	37.2	11	34.6
WHEELER	2	*	3	*
YORK	47	49.8	45	49.1

NA – not applicable

*Rate not shown if based on five or fewer events.

Rates are expressed per 100,000 population and are age-adjusted to the 2000 U.S. standard population

▼ county rate significantly lower than the state rate

▲ county rate significantly higher than the state rate

TABLE 6

Breast Cancer Incidence and Mortality (Females Only)
By County of Residence, Nebraska and USA (1995-1999)

	<u>Incidence</u>		<u>Mortality</u>	
	<u># Cases</u>	<u>Rate</u>	<u># Deaths</u>	<u>Rate</u>
USA (SEER)	NA	136.7	NA	28.8
NEBRASKA	5,917	129.5	1,334	27.2
<u>COUNTY</u>				
ADAMS	102	113.1	21	23.7
ANTELOPE	36	149.4	7	28.5
ARTHUR	-	-	1	*
BANNER	4	*	-	-
BLAINE	1	*	-	-
BOONE	26	125.0	9	31.0
BOX BUTTE	40	119.6	10	29.1
BOYD	9	62.2	1	*
BROWN	16	127.1	5	*
BUFFALO	142	147.7	23	21.3
BURT	27	97.5	9	31.1
BUTLER	34	118.8	5	*
CASS	71	113.1	12	17.7
CEDAR	29	87.3	2	*
CHASE	21	139.1	4	*
CHERRY	30	142.5	4	*
CHEYENNE	35	105.2	7	21.4
CLAY	40	173.0	6	29.6
COLFAX	29	▼ 66.1	9	18.1
CUMING	37	95.1	18	46.3
CUSTER	50	98.9	11	22.6
DAKOTA	49	110.4	14	29.6
DAWES	40	157.2	13	53.0
DAWSON	88	127.4	25	32.9
DEUEL	15	226.6	2	*
DIXON	13	66.5	2	*
DODGE	180	159.0	38	32.3
DOUGLAS	1537	138.5	332	28.9
DUNDY	5	*	2	*
FILLMORE	27	106.1	6	18.8
FRANKLIN	17	113.5	3	*
FRONTIER	8	84.4	2	*
FURNAS	16	75.1	4	*
GAGE	120	141.1	26	27.1
GARDEN	20	235.8	4	*
GARFIELD	14	171.1	4	*
GOSPER	3	*	2	*
GRANT	1	*	-	-
GREELEY	12	97.4	5	*
HALL	176	125.4	53	33.1
HAMILTON	38	132.4	13	40.3
HARLAN	23	159.9	5	*
HAYES	1	*	1	*
HITCHCOCK	16	147.2	3	*
HOLT	42	101.4	15	38.9
HOOKE	1	*	-	-
HOWARD	19	94.9	9	32.1

TABLE 6
(Continued)
 Breast Cancer Incidence and Mortality (Females Only)
 By County of Residence, Nebraska and USA (1995-1999)

<u>COUNTY</u>	<u>Incidence</u>		<u>Mortality</u>	
	<u># Cases</u>	<u>Rate</u>	<u># Deaths</u>	<u>Rate</u>
JEFFERSON	34	96.0	11	27.0
JOHNSON	23	122.3	8	40.8
KEARNEY	22	104.3	10	49.7
KEITH	45	158.7	7	23.6
KEYA PAHA	4	*	-	-
KIMBALL	25	171.6	3	*
KNOX	18	58.3	2	*
LANCASTER	775	138.5	191	32.4
LINCOLN	123	125.3	24	23.0
LOGAN	7	254.6	1	*
LOUP	3	*	-	-
McPHERSON	3	*	-	-
MADISON	128	132.9	26	23.0
MERRICK	30	112.3	10	30.5
MORRILL	22	130.4	4	*
NANCE	23	134.5	4	*
NEMAHA	29	122.8	7	25.3
NUCKOLLS	27	135.2	10	35.6
OTOE	67	133.4	14	24.7
PAWNEE	16	108.4	3	*
PERKINS	14	125.8	3	*
PHELPS	36	111.2	5	*
PIERCE	31	106.5	8	26.6
PLATTE	132	175.8	25	32.5
POLK	20	102.7	4	*
RED WILLOW	30	86.1	12	31.3
RICHARDSON	41	107.9	9	22.9
ROCK	9	152.9	1	*
SALINE	47	107.3	11	23.2
SARPY	294	133.5	56	27.0
SAUNDERS	74	131.8	17	25.9
SCOTTS BLUFF	144	133.8	28	24.9
SEWARD	55	115.1	9	15.5
SHERIDAN	21	86.5	4	*
SHERMAN	9	68.2	7	43.8
SIOUX	4	*	1	*
STANTON	21	119.9	3	*
THAYER	32	134.9	6	21.5
THOMAS	2	*	-	-
THURSTON	14	82.9	5	*
VALLEY	21	120.6	6	25.9
WASHINGTON	65	131.8	10	20.7
WAYNE	24	90.6	8	27.1
WEBSTER	23	150.9	2	*
WHEELER	5	*	-	-
YORK	65	144.9	12	25.5

NA – not applicable

*Rate not shown if based on five or fewer events.

Rates are expressed per 100,000 female population and are age-adjusted to the 2000 U.S. standard population

▼ county rate significantly lower than the state rate

▲ county rate significantly higher than the state rate

TABLE 7
Colorectal Cancer Incidence and Mortality
By County of Residence, Nebraska and USA (1995-1999)

	<u>Incidence</u>		<u>Mortality</u>	
	<u># Cases</u>	<u>Rate</u>	<u># Deaths</u>	<u>Rate</u>
USA (SEER)	NA	55.1	NA	21.7
NEBRASKA	5,109	58.4	2,045	23.0
<u>COUNTY</u>				
ADAMS	100	53.9	50	26.6
ANTELOPE	31	61.7	19	38.1
ARTHUR	1	*	2	*
BANNER	2	*	-	-
BLAINE	5	*	3	*
BOONE	31	68.9	12	22.4
BOX BUTTE	38	56.2	18	25.6
BOYD	11	54.0	6	29.5
BROWN	18	64.8	4	*
BUFFALO	98	55.2	27	14.1
BURT	39	64.9	17	26.1
BUTLER	32	49.5	16	25.4
CASS	66	56.0	29	24.4
CEDAR	43	62.7	16	20.7
CHASE	18	62.4	11	34.7
CHERRY	19	46.7	12	26.9
CHEYENNE	28	43.6	14	20.9
CLAY	34	71.5	13	26.2
COLFAX	41	46.7	14	16.9
CUMING	45	61.8	25	32.0
CUSTER	47	55.2	16	18.2
DAKOTA	59	73.8	18	22.5
DAWES	22	43.5	13	25.5
DAWSON	70	53.3	31	24.1
DEUEL	7	38.1	6	28.0
DIXON	19	41.1	3	*
DODGE	165	71.9	56	23.5
DOUGLAS	1216	61.9	463	23.8
DUNDY	20	113.1	4	*
FILLMORE	28	50.9	14	26.6
FRANKLIN	24	77.3	12	37.4
FRONTIER	13	64.1	3	*
FURNAS	22	49.7	10	19.0
GAGE	83	50.2	33	17.3
GARDEN	19	107.7	6	30.4
GARFIELD	13	65.5	8	39.2
GOSPER	7	36.8	2	*
GRANT	-	-	-	-
GREELEY	22	97.6	7	33.9
HALL	147	53.5	62	22.6
HAMILTON	26	45.3	11	19.4
HARLAN	18	53.7	11	31.9
HAYES	-	-	2	*
HITCHCOCK	15	59.2	5	*
HOLT	56	67.7	20	22.2
HOOKER	5	*	-	-
HOWARD	17	38.8	9	18.9

TABLE 7
(Continued)
 Colorectal Cancer Incidence and Mortality
 By County of Residence, Nebraska and USA (1995-1999)

<u>COUNTY</u>	<u>Incidence</u>		<u>Mortality</u>	
	<u># Cases</u>	<u>Rate</u>	<u># Deaths</u>	<u>Rate</u>
JEFFERSON	40	65.7	16	25.5
JOHNSON	27	68.2	10	24.6
KEARNEY	25	57.8	9	20.6
KEITH	23	41.1	10	17.1
KEYA PAHA	6	93.8	3	*
KIMBALL	25	90.3	5	*
KNOX	45	60.5	15	17.4
LANCASTER	592	59.2	208	20.7
LINCOLN	104	55.5	45	23.8
LOGAN	1	*	1	*
LOUP	3	*	3	*
McPHERSON	1	*	1	*
MADISON	133	70.8	44	23.1
MERRICK	35	68.2	19	30.3
MORRILL	15	39.4	8	18.1
NANCE	23	75.0	7	24.2
NEMAHA	32	61.3	17	29.5
NUCKOLLS	23	43.8	9	21.3
OTOE	67	63.6	35	32.6
PAWNEE	18	53.5	9	23.2
PERKINS	9	41.2	5	*
PHELPS	31	46.0	14	19.5
PIERCE	29	58.8	13	27.2
PLATTE	98	73.5	44	33.1
POLK	21	50.7	11	25.7
RED WILLOW	51	68.9	21	26.9
RICHARDSON	54	72.6	27	35.1
ROCK	9	66.5	2	*
SALINE	61	69.6	22	22.0
SARPY	195	54.7	70	21.1
SAUNDERS	57	50.9	23	20.3
SCOTTS BLUFF	101	45.5	47	21.8
SEWARD	48	51.2	17	17.5
SHERIDAN	26	56.7	12	24.7
SHERMAN	10	38.8	4	*
SIOUX	1	*	1	*
STANTON	15	51.1	7	23.4
THAYER	32	62.4	15	28.5
THOMAS	2	*	-	-
THURSTON	15	41.7	7	18.8
VALLEY	17	42.8	12	28.6
WASHINGTON	51	52.4	24	23.5
WAYNE	21	43.5	7	14.1
WEBSTER	19	55.8	10	25.4
WHEELER	4	*	2	*
YORK	54	57.3	21	21.7

NA – not applicable

*Rate not shown if based on five or fewer events.

Rates are expressed per 100,000 population and are age-adjusted to the 2000 U.S. standard population

TABLE 8

Prostate Cancer Incidence and Mortality
By County of Residence, Nebraska and USA (1995-1999)

	<u>Incidence</u>		<u>Mortality</u>	
	<u># Cases</u>	<u>Rate</u>	<u># Deaths</u>	<u>Rate</u>
USA (SEER)	NA	168.9	NA	33.9
NEBRASKA	6,056	162.2	1,011	29.2
<u>COUNTY</u>				
ADAMS	113	155.7	17	24.7
ANTELOPE	37	168.2	4	*
ARTHUR	3	*	-	-
BANNER	4	*	1	*
BLAINE	2	*	-	-
BOONE	31	144.7	2	*
BOX BUTTE	50	180.5	3	*
BOYD	10	83.4	2	*
BROWN	19	147.9	7	52.6
BUFFALO	164	218.5	23	31.3
BURT	51	183.4	6	20.7
BUTLER	34	134.8	12	44.9
CASS	62	113.9	19	42.6
CEDAR	37	119.9	10	30.9
CHASE	21	159.3	3	*
CHERRY	18	102.2	2	*
CHEYENNE	43	155.0	12	44.4
CLAY	41	187.8	6	28.3
COLFAX	59	173.5	4	*
CUMING	41	124.6	6	17.9
CUSTER	102	▲ 263.3	14	32.2
DAKOTA	34	▼ 97.1	12	38.3
DAWES	27	134.1	7	34.4
DAWSON	92	158.5	20	35.4
DEUEL	14	181.2	1	*
DIXON	22	118.1	4	*
DODGE	148	156.8	20	21.8
DOUGLAS	1270	156.5	207	30.9
DUNDY	14	173.4	2	*
FILLMORE	30	138.2	2	*
FRANKLIN	29	202.8	5	*
FRONTIER	9	103.8	1	*
FURNAS	47	253.5	9	40.4
GAGE	82	123.8	20	30.0
GARDEN	13	159.9	4	*
GARFIELD	17	201.2	5	*
GOSPER	17	201.0	2	*
GRANT	5	*	-	-
GREELEY	21	218.4	2	*
HALL	193	160.1	33	29.7
HAMILTON	63	256.0	7	34.3
HARLAN	20	141.2	1	*
HAYES	3	*	1	*
HITCHCOCK	20	185.9	2	*
HOLT	75	199.9	11	29.6
HOOKER	4	*	2	*
HOWARD	34	174.8	6	31.8

TABLE 8
(Continued)
 Prostate Cancer Incidence and Mortality
 By County of Residence, Nebraska and USA (1995-1999)

<u>COUNTY</u>	<u>Incidence</u>		<u>Mortality</u>	
	<u># Cases</u>	<u>Rate</u>	<u># Deaths</u>	<u>Rate</u>
JEFFERSON	44	153.9	8	26.0
JOHNSON	23	157.4	9	61.4
KEARNEY	40	228.4	4	*
KEITH	36	143.8	7	28.0
KEYA PAHA	4	*	3	*
KIMBALL	33	239.9	2	*
KNOX	46	132.1	12	31.4
LANCASTER	743	177.2	107	30.4
LINCOLN	119	144.5	17	21.4
LOGAN	1	*	1	*
LOUP	1	*	2	*
McPHERSON	5	*	-	-
MADISON	165	216.7	22	28.6
MERRICK	44	188.9	8	31.3
MORRILL	39	255.6	4	*
NANCE	25	180.7	4	*
NEMAHA	22	103.7	6	26.8
NUCKOLLS	29	139.1	6	26.6
OTOE	68	157.4	14	31.5
PAWNEE	21	150.7	1	*
PERKINS	11	111.1	3	*
PHELPS	53	199.0	8	27.4
PIERCE	35	156.9	6	27.5
PLATTE	126	217.9	22	43.0
POLK	24	131.5	10	49.3
RED WILLOW	51	151.5	5	*
RICHARDSON	46	145.8	10	28.8
ROCK	13	210.8	3	*
SALINE	66	183.5	9	22.9
SARPY	233	148.1	39	37.7
SAUNDERS	68	131.1	20	38.0
SCOTTS BLUFF	148	148.1	23	24.2
SEWARD	58	146.8	15	38.0
SHERIDAN	33	148.4	4	*
SHERMAN	17	142.7	6	50.8
SIOUX	2	*	1	*
STANTON	23	174.6	6	49.4
THAYER	53	224.0	3	*
THOMAS	7	406.1	1	*
THURSTON	26	160.1	5	*
VALLEY	33	194.3	6	36.0
WASHINGTON	75	178.4	14	35.6
WAYNE	28	131.6	4	*
WEBSTER	21	143.5	3	*
WHEELER	4	*	2	*
YORK	48	121.6	7	18.3

NA – not applicable

*Rate not shown if based on five or fewer events.

Rates are expressed per 100,000 male population and are age-adjusted to the 2000 U.S. standard population

▼ county rate significantly lower than the state rate

▲ county rate significantly higher than the state rate

TABLE 9

**Bladder Cancer Incidence and Mortality
By County of Residence, Nebraska and USA (1995-1999)**

	<u>Incidence</u>		<u>Mortality</u>	
	<u># Cases</u>	<u>Rate</u>	<u># Deaths</u>	<u>Rate</u>
USA (SEER)	NA	20.9	NA	4.4
NEBRASKA	1,683	19.3	351	3.8
<u>COUNTY</u>				
ADAMS	41	23.4	11	5.5
ANTELOPE	7	12.5	4	*
ARTHUR	4	*	-	-
BANNER	1	*	-	-
BLAINE	1	*	-	-
BOONE	4	*	-	-
BOX BUTTE	17	24.4	5	*
BOYD	3	*	3	*
BROWN	6	21.8	1	*
BUFFALO	51	28.3	4	*
BURT	16	26.8	2	*
BUTLER	14	24.5	1	*
CASS	25	21.1	4	*
CEDAR	6	7.6	4	*
CHASE	6	17.3	-	-
CHERRY	7	15.6	3	*
CHEYENNE	11	17.7	2	*
CLAY	11	24.8	2	*
COLFAX	9	11.7	-	-
CUMING	6	9.2	3	*
CUSTER	16	17.4	6	5.7
DAKOTA	10	11.9	2	*
DAWES	14	30.4	4	*
DAWSON	27	19.9	3	*
DEUEL	1	*	1	*
DIXON	7	15.7	4	*
DODGE	39	17.4	10	3.9
DOUGLAS	348	17.7	83	4.3
DUNDY	5	*	2	*
FILLMORE	13	26.2	-	-
FRANKLIN	7	19.9	2	*
FRONTIER	6	33.5	-	-
FURNAS	10	21.2	-	-
GAGE	30	18.8	5	*
GARDEN	9	58.0	1	*
GARFIELD	3	*	-	-
GOSPER	5	*	-	-
GRANT	1	*	-	-
GREELEY	4	*	-	-
HALL	58	21.4	9	3.1
HAMILTON	11	19.4	4	*
HARLAN	9	27.6	4	*
HAYES	-	-	-	-
HITCHCOCK	4	*	-	-
HOLT	20	23.2	4	*
HOOKER	2	*	-	-
HOWARD	10	23.4	1	*

TABLE 9
(Continued)
 Bladder Cancer Incidence and Mortality
 By County of Residence, Nebraska and USA (1995-1999)

<u>COUNTY</u>	<u>Incidence</u>		<u>Mortality</u>	
	<u># Cases</u>	<u>Rate</u>	<u># Deaths</u>	<u>Rate</u>
JEFFERSON	12	18.6	2	*
JOHNSON	6	17.8	2	*
KEARNEY	12	28.3	1	*
KEITH	16	28.7	2	*
KEYA PAHA	-	-	-	-
KIMBALL	4	*	-	-
KNOX	10	10.8	2	*
LANCASTER	190	19.1	38	3.7
LINCOLN	44	23.5	11	5.8
LOGAN	-	-	-	-
LOUP	1	*	-	-
McPHERSON	1	*	-	-
MADISON	46	24.3	5	*
MERRICK	15	25.8	2	*
MORRILL	6	16.2	1	*
NANCE	2	*	-	-
NEMAHA	8	14.8	3	*
NUCKOLLS	9	20.0	2	*
OTOE	23	22.7	7	5.9
PAWNEE	9	28.5	3	*
PERKINS	6	28.2	1	*
PHELPS	14	23.4	2	*
PIERCE	11	19.8	1	*
PLATTE	26	19.9	4	*
POLK	8	17.5	1	*
RED WILLOW	13	16.9	1	*
RICHARDSON	12	16.2	3	*
ROCK	1	*	-	-
SALINE	13	14.9	1	*
SARPY	72	20.8	15	5.1
SAUNDERS	16	14.0	7	5.8
SCOTTS BLUFF	62	28.9	11	4.9
SEWARD	16	16.5	4	*
SHERIDAN	6	12.4	4	*
SHERMAN	5	*	2	*
SIOUX	1	*	1	*
STANTON	7	24.9	-	-
THAYER	8	13.7	2	*
THOMAS	-	-	-	-
THURSTON	4	*	-	-
VALLEY	10	21.9	4	*
WASHINGTON	11	10.7	4	*
WAYNE	10	19.3	2	*
WEBSTER	6	14.7	3	*
WHEELER	-	-	-	-
YORK	16	17.1	3	*

NA – not applicable

*Rate not shown if based on five or fewer events.

Rates are expressed per 100,000 population and are age-adjusted to the 2000 U.S. standard population

TABLE 10

Non-Hodgkin's Lymphoma Incidence and Mortality
By County of Residence, Nebraska and USA (1995-1999)

	<u>Incidence</u>		<u>Mortality</u>	
	<u># Cases</u>	<u>Rate</u>	<u># Deaths</u>	<u>Rate</u>
USA (SEER)	NA	19.4	NA	8.7
NEBRASKA	1,617	18.9	766	8.6
<u>COUNTY</u>				
ADAMS	25	14.4	14	7.2
ANTELOPE	12	23.3	5	*
ARTHUR	1	*	1	*
BANNER	-	-	-	-
BLAINE	-	-	-	-
BOONE	13	27.9	-	-
BOX BUTTE	11	17.9	7	9.7
BOYD	4	*	1	*
BROWN	5	*	2	*
BUFFALO	40	22.6	20	10.9
BURT	14	23.3	7	9.6
BUTLER	9	16.4	6	9.4
CASS	23	19.3	9	7.5
CEDAR	6	9.1	3	*
CHASE	3	*	1	*
CHERRY	7	18.6	3	*
CHEYENNE	16	28.5	3	*
CLAY	14	32.3	6	13.2
COLFAX	10	14.9	4	*
CUMING	7	11.7	4	*
CUSTER	17	21.2	4	*
DAKOTA	13	15.6	3	*
DAWES	6	12.9	4	*
DAWSON	17	13.2	7	5.3
DEUEL	4	*	1	*
DIXON	14	34.3	10	20.7
DODGE	52	24.8	21	9.3
DOUGLAS	358	17.8	192	9.7
DUNDY	4	*	2	*
FILLMORE	9	20.0	8	16.2
FRANKLIN	5	*	2	*
FRONTIER	5	*	1	*
FURNAS	10	19.5	7	13.6
GAGE	28	18.3	18	10.9
GARDEN	2	*	-	-
GARFIELD	1	*	-	-
GOSPER	4	*	1	*
GRANT	-	-	-	-
GREELEY	4	*	2	*
HALL	49	18.8	24	8.8
HAMILTON	10	18.8	6	9.6
HARLAN	6	18.1	5	*
HAYES	-	-	1	*
HITCHCOCK	6	20.3	4	*
HOLT	11	12.3	4	*
HOOKE	1	*	-	-
HOWARD	10	24.0	4	*

TABLE 10
(Continued)
 Non-Hodgkin's Lymphoma Incidence and Mortality
 By County of Residence, Nebraska and USA (1995-1999)

<u>COUNTY</u>	<u>Incidence</u>		<u>Mortality</u>	
	<u># Cases</u>	<u>Rate</u>	<u># Deaths</u>	<u>Rate</u>
JEFFERSON	16	25.4	8	11.7
JOHNSON	8	21.9	3	*
KEARNEY	5	*	5	*
KEITH	9	18.2	5	*
KEYA PAHA	2	*	1	*
KIMBALL	2	*	3	*
KNOX	6	7.4	3	*
LANCASTER	205	20.0	90	8.9
LINCOLN	38	20.8	15	7.8
LOGAN	-	-	-	-
LOUP	3	*	1	*
McPHERSON	-	-	-	-
MADISON	34	17.4	20	10.1
MERRICK	10	20.1	4	*
MORRILL	6	19.6	2	*
NANCE	8	27.8	3	*
NEMAHA	9	18.8	5	*
NUCKOLLS	17	45.1	9	21.9
OTOE	21	22.2	11	9.6
PAWNEE	7	22.5	4	*
PERKINS	2	*	4	*
PHELPS	8	14.0	5	*
PIERCE	15	30.6	4	*
PLATTE	38	28.1	13	9.6
POLK	9	21.3	3	*
RED WILLOW	16	23.0	7	9.1
RICHARDSON	9	13.0	7	8.1
ROCK	3	*	1	*
SALINE	16	19.9	4	*
SARPY	60	14.2	19	5.8
SAUNDERS	27	25.1	9	7.2
SCOTTS BLUFF	37	17.3	19	8.3
SEWARD	24	25.6	8	7.5
SHERIDAN	4	*	7	14.7
SHERMAN	5	*	1	*
SIOUX	-	-	1	*
STANTON	4	*	3	*
THAYER	15	27.9	5	*
THOMAS	1	*	-	-
THURSTON	3	*	1	*
VALLEY	6	18.7	4	*
WASHINGTON	24	25.5	13	13.7
WAYNE	7	14.4	2	*
WEBSTER	3	*	2	*
WHEELER	-	-	2	*
YORK	9	11.2	3	*

NA – not applicable

*Rate not shown if based on five or fewer events.

Rates are expressed per 100,000 population and are age-adjusted to the 2000 U.S. standard population

TABLE 11
Leukemia Incidence and Mortality
By County of Residence, Nebraska and USA (1995-1999)

	<u>Incidence</u>		<u>Mortality</u>	
	<u># Cases</u>	<u>Rate</u>	<u># Deaths</u>	<u>Rate</u>
USA (SEER)	NA	12.2	NA	7.8
NEBRASKA	1,062	12.3	706	7.9
<u>COUNTY</u>				
ADAMS	19	11.9	12	6.2
ANTELOPE	7	11.6	5	*
ARTHUR	-	-	-	-
BANNER	1	*	-	-
BLAINE	1	*	-	-
BOONE	5	*	1	*
BOX BUTTE	2	*	4	*
BOYD	1	*	1	*
BROWN	3	*	2	*
BUFFALO	23	13.1	8	4.8
BURT	5	*	4	*
BUTLER	13	23.0	9	15.0
CASS	14	11.9	10	8.5
CEDAR	8	13.8	4	*
CHASE	5	*	3	*
CHERRY	6	17.6	4	*
CHEYENNE	12	18.9	7	10.9
CLAY	5	*	4	*
COLFAX	11	13.6	6	5.2
CUMING	8	13.4	5	*
CUSTER	13	14.9	4	*
DAKOTA	15	17.9	10	12.4
DAWES	4	*	5	*
DAWSON	15	12.0	5	*
DEUEL	-	-	-	-
DIXON	7	16.1	4	*
DODGE	29	13.4	17	7.2
DOUGLAS	243	11.9	183	9.3
DUNDY	2	*	2	*
FILLMORE	6	10.5	2	*
FRANKLIN	4	*	1	*
FRONTIER	2	*	1	*
FURNAS	3	*	2	*
GAGE	8	6.0	5	*
GARDEN	2	*	2	*
GARFIELD	4	*	1	*
GOSPER	-	-	-	-
GRANT	1	*	-	-
GREELEY	1	*	2	*
HALL	34	12.5	22	8.0
HAMILTON	5	*	7	11.5
HARLAN	3	*	2	*
HAYES	-	-	-	-
HITCHCOCK	4	*	2	*
HOLT	5	*	3	*
HOOKE	1	*	-	-
HOWARD	6	13.3	4	*

TABLE 11
(Continued)
 Leukemia Incidence and Mortality
 By County of Residence, Nebraska and USA (1995-1999)

<u>COUNTY</u>	<u>Incidence</u>		<u>Mortality</u>	
	<u># Cases</u>	<u>Rate</u>	<u># Deaths</u>	<u>Rate</u>
JEFFERSON	4	*	-	-
JOHNSON	7	16.9	4	*
KEARNEY	2	*	4	*
KEITH	9	15.8	6	10.3
KEYA PAHA	-	-	-	-
KIMBALL	5	*	4	*
KNOX	8	9.6	7	7.3
LANCASTER	129	12.5	93	9.1
LINCOLN	26	14.3	13	7.0
LOGAN	-	-	1	*
LOUP	-	-	-	-
McPHERSON	1	*	-	-
MADISON	28	15.7	21	10.7
MERRICK	3	*	-	-
MORRILL	2	*	2	*
NANCE	6	22.2	3	*
NEMAHA	3	*	1	*
NUCKOLLS	11	24.4	10	21.8
OTOE	8	7.7	7	7.1
PAWNEE	2	*	2	*
PERKINS	4	*	3	*
PHELPS	10	14.9	5	*
PIERCE	6	11.3	4	*
PLATTE	20	14.8	14	10.3
POLK	6	15.6	2	*
RED WILLOW	13	17.9	6	7.0
RICHARDSON	12	17.6	3	*
ROCK	2	*	1	*
SALINE	9	11.4	6	7.7
SARPY	50	12.1	21	6.3
SAUNDERS	9	8.0	8	7.2
SCOTTS BLUFF	26	12.7	19	9.1
SEWARD	16	17.9	13	13.6
SHERIDAN	2	*	3	*
SHERMAN	4	*	1	*
SIOUX	-	-	2	*
STANTON	1	*	3	*
THAYER	11	20.0	6	12.8
THOMAS	-	-	-	-
THURSTON	6	19.2	3	*
VALLEY	1	*	5	*
WASHINGTON	14	14.4	13	12.8
WAYNE	9	19.4	4	*
WEBSTER	4	*	2	*
WHEELER	-	-	2	*
YORK	7	7.8	4	*

NA – not applicable

*Rate not shown if based on five or fewer events.

Rates are expressed per 100,000 population and are age-adjusted to the 2000 U.S. standard population

TABLE 12

Oral Cavity Cancer Incidence and Mortality
By County of Residence, Nebraska and USA (1995-1999)

	<u>Incidence</u>		<u>Mortality</u>	
	<u># Cases</u>	<u>Rate</u>	<u># Deaths</u>	<u>Rate</u>
USA (SEER)	NA	11.3	NA	3.0
NEBRASKA	892	10.6	178	2.1
<u>COUNTY</u>				
ADAMS	26	15.3	5	*
ANTELOPE	7	14.4	2	*
ARTHUR	-	-	-	-
BANNER	-	-	-	-
BLAINE	-	-	1	*
BOONE	5	*	-	-
BOX BUTTE	10	13.6	1	*
BOYD	-	-	-	-
BROWN	2	*	-	-
BUFFALO	27	15.5	4	*
BURT	5	*	-	-
BUTLER	3	*	2	*
CASS	8	6.8	3	*
CEDAR	4	*	1	*
CHASE	3	*	-	-
CHERRY	3	*	1	*
CHEYENNE	12	21.2	4	*
CLAY	2	*	-	-
COLFAX	7	10.3	1	*
CUMING	5	*	1	*
CUSTER	11	11.5	2	*
DAKOTA	17	20.6	2	*
DAWES	7	16.8	1	*
DAWSON	10	7.7	3	*
DEUEL	4	*	1	*
DIXON	2	*	1	*
DODGE	18	8.5	5	*
DOUGLAS	208	10.5	57	2.9
DUNDY	2	*	-	-
FILLMORE	4	*	-	-
FRANKLIN	2	*	-	-
FRONTIER	5	*	2	*
FURNAS	6	11.9	1	*
GAGE	17	11.4	2	*
GARDEN	1	*	-	-
GARFIELD	3	*	2	*
GOSPER	1	*	1	*
GRANT	2	*	-	-
GREELEY	3	*	2	*
HALL	25	9.7	5	*
HAMILTON	6	10.9	2	*
HARLAN	3	*	-	-
HAYES	-	-	1	*
HITCHCOCK	2	*	-	-
HOLT	5	*	-	-
HOOKE	-	-	-	-
HOWARD	4	*	2	*

TABLE 12
(Continued)
 Oral Cavity Cancer Incidence and Mortality
 By County of Residence, Nebraska and USA (1995-1999)

<u>COUNTY</u>	<u>Incidence</u>		<u>Mortality</u>	
	<u># Cases</u>	<u>Rate</u>	<u># Deaths</u>	<u>Rate</u>
JEFFERSON	6	10.9	3	*
JOHNSON	4	*	-	-
KEARNEY	4	*	1	*
KEITH	5	*	1	*
KEYA PAHA	-	-	-	-
KIMBALL	2	*	1	*
KNOX	4	*	-	-
LANCASTER	106	10.6	16	1.6
LINCOLN	16	9.2	2	*
LOGAN	3	*	-	-
LOUP	-	-	-	-
McPHERSON	-	-	-	-
MADISON	19	11.0	6	3.6
MERRICK	7	12.9	2	*
MORRILL	6	18.2	-	-
NANCE	3	*	-	-
NEMAHA	5	*	-	-
NUCKOLLS	2	*	1	*
OTOE	10	9.6	2	*
PAWNEE	4	*	-	-
PERKINS	1	*	1	*
PHELPS	3	*	1	*
PIERCE	5	*	-	-
PLATTE	16	12.1	3	*
POLK	2	*	-	-
RED WILLOW	10	14.5	2	*
RICHARDSON	4	*	-	-
ROCK	1	*	-	-
SALINE	6	7.8	-	-
SARPY	38	10.0	6	1.6
SAUNDERS	16	14.6	2	*
SCOTTS BLUFF	32	15.8	1	*
SEWARD	9	10.2	-	-
SHERIDAN	6	15.7	3	*
SHERMAN	2	*	1	*
SIOUX	-	-	-	-
STANTON	6	19.5	1	*
THAYER	4	*	-	-
THOMAS	-	-	-	-
THURSTON	6	17.5	1	*
VALLEY	2	*	-	-
WASHINGTON	8	8.3	-	-
WAYNE	3	*	1	*
WEBSTER	4	*	2	*
WHEELER	1	*	-	-
YORK	4	*	-	-

NA – not applicable

*Rate not shown if based on five or fewer events.

Rates are expressed per 100,000 population and are age-adjusted to the 2000 U.S. standard population

TABLE 13

Skin Melanoma Incidence and Mortality
By County of Residence, Nebraska and USA (1995-1999)

	<u>Incidence</u>		<u>Mortality</u>	
	<u># Cases</u>	<u>Rate</u>	<u># Deaths</u>	<u>Rate</u>
USA (SEER)	NA	17.2	NA	2.7
NEBRASKA	1,232	14.9	233	2.7
<u>COUNTY</u>				
ADAMS	23	14.7	6	3.3
ANTELOPE	8	18.0	-	-
ARTHUR	-	-	-	-
BANNER	1	*	-	-
BLAINE	-	-	-	-
BOONE	3	*	1	*
BOX BUTTE	12	18.5	2	*
BOYD	2	*	1	*
BROWN	2	*	-	-
BUFFALO	30	16.9	7	4.3
BURT	5	*	1	*
BUTLER	3	*	-	-
CASS	22	18.5	2	*
CEDAR	4	*	-	-
CHASE	8	33.9	1	*
CHERRY	6	17.6	1	*
CHEYENNE	10	18.6	-	-
CLAY	2	*	1	*
COLFAX	11	12.4	3	*
CUMING	7	12.8	-	-
CUSTER	16	24.2	3	*
DAKOTA	9	10.1	2	*
DAWES	4	*	2	*
DAWSON	13	10.2	3	*
DEUEL	2	*	1	*
DIXON	6	13.7	2	*
DODGE	27	14.4	6	2.8
DOUGLAS	298	14.2	52	2.6
DUNDY	4	*	-	-
FILLMORE	4	*	2	*
FRANKLIN	3	*	-	-
FRONTIER	3	*	-	-
FURNAS	5	*	1	*
GAGE	20	14.6	5	*
GARDEN	2	*	-	-
GARFIELD	1	*	-	-
GOSPER	1	*	-	-
GRANT	2	*	1	*
GREELEY	2	*	-	-
HALL	36	14.3	9	3.3
HAMILTON	9	17.1	5	*
HARLAN	7	42.1	2	*
HAYES	-	-	1	*
HITCHCOCK	9	46.1	1	*
HOLT	11	13.7	2	*
HOOKER	2	*	-	-
HOWARD	2	*	-	-

TABLE 13
(Continued)
 Skin Melanoma Incidence and Mortality
 By County of Residence, Nebraska and USA (1995-1999)

<u>COUNTY</u>	<u>Incidence</u>		<u>Mortality</u>	
	<u># Cases</u>	<u>Rate</u>	<u># Deaths</u>	<u>Rate</u>
JEFFERSON	10	19.0	-	-
JOHNSON	1	*	-	-
KEARNEY	3	*	-	-
KEITH	10	22.2	3	*
KEYA PAHA	-	-	-	-
KIMBALL	1	*	1	*
KNOX	7	15.4	-	-
LANCASTER	177	16.8	22	2.2
LINCOLN	34	20.1	6	3.4
LOGAN	1	*	-	-
LOUP	-	-	-	-
McPHERSON	-	-	-	-
MADISON	24	13.7	7	4.0
MERRICK	5	*	-	-
MORRILL	6	19.6	6	18.0
NANCE	5	*	2	*
NEMAHA	7	14.9	-	-
NUCKOLLS	6	12.0	-	-
OTOE	17	23.2	2	*
PAWNEE	3	*	-	-
PERKINS	5	*	2	*
PHELPS	9	14.1	3	*
PIERCE	1	*	-	-
PLATTE	11	7.8	3	*
POLK	3	*	1	*
RED WILLOW	10	13.2	2	*
RICHARDSON	15	24.5	2	*
ROCK	1	*	-	-
SALINE	10	15.4	4	*
SARPY	86	19.5	19	5.1
SAUNDERS	14	14.1	3	*
SCOTTS BLUFF	35	17.3	4	*
SEWARD	13	15.1	3	*
SHERIDAN	4	*	-	-
SHERMAN	2	*	1	*
SIOUX	-	-	-	-
STANTON	3	*	1	*
THAYER	3	*	-	-
THOMAS	-	-	-	-
THURSTON	3	*	1	*
VALLEY	2	*	-	-
WASHINGTON	10	10.7	3	*
WAYNE	5	*	2	*
WEBSTER	4	*	1	*
WHEELER	-	-	-	-
YORK	9	12.3	3	*

NA – not applicable

*Rate not shown if based on five or fewer events.

Rates are expressed per 100,000 population and are age-adjusted to the 2000 U.S. standard population

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Participants in the Nebraska Cancer Registry

(City, Organization)

Ainsworth, Brown County Hospital
 Albion, Boone County Health Center
 Alliance, Box Butte General Hospital
 Alma, Harlan County Health System
 Atkinson, West Holt Memorial Hospital, Inc.
 Auburn, Nemaha County Hospital
 Aurora, Memorial Hospital
 Bassett, Rock County Hospital
 Beatrice, Beatrice Community Hosp. & Hlth. Ctr. Inc.
 Benkelman, Dundy County Hospital
 Blair, Memorial Community Hospital
 Bridgeport, Morrill County Community Hospital
 Broken Bow, Jennie M. Melham Mem. Med. Ctr., Inc.
 Callaway, Callaway District Hospital
 Cambridge, Tri Valley Health System
 Central City, Litzenberg Memorial County Hospital
 Chadron, Chadron Community Hosp. & Hlth. Serv.
 Columbus, Columbus Community Hospital, Inc.
 Cozad, Cozad Community Hospital
 Creighton, Creighton Area Health Services
 Crete, Crete Area Medical Center
 David City, Butler County Health Care Center
 Fairbury, Jefferson County Health Center, Inc.
 Falls City, Community Medical Center, Inc.
 Franklin, Franklin County Memorial Hospital
 Fremont, Fremont Area Medical Center
 Friend, Warren Memorial Hospital
 Geneva, Fillmore County Hospital
 Genoa, Genoa Community Hospital/LTC
 Gordon, Gordon Memorial Hospital District
 Gothenburg, Gothenburg Memorial Hospital and LTC
 Grand Island, St. Francis Medical Center
 Grant, Perkins County Health Services
 Hastings, Mary Lanning Memorial Hospital
 Hebron, Thayer County Memorial Hospital
 Henderson, Henderson Health Care Services
 Holdrege, Phelps Memorial Health Center
 Imperial, Chase County Community Hospital
 Kearney, Good Samaritan Hospital
 Kearney, Good Samaritan Hospital Pathology
 Kimball, Kimball County Hospital
 Lexington, Tri-County Area Hospital District
 Lincoln, Bryan LGH East/West
 Lincoln, Saint Elizabeth Regional Medical Center
 Lincoln, Pathology Medical Services
 Lincoln, Williamsburg Radiation Center
 Lynch, Niobrara Valley Hospital Corp.
 McCook, Community Hospital
 Minden, Kearney County Health Services-Hospital
 Nebraska City, St. Mary's Hospital
 Neligh, Antelope Memorial Hospital
 Norfolk, Faith Regional Health Services
 North Platte, Great Plains Regional Medical Center

North Platte, Pathology Services, P.C.
 Oakland, Oakland Memorial Hospital
 Offutt AFB, Ehrling Berquist
 Ogallala, Ogallala Community Hospital
 Omaha, Alegent Health Bergan Mercy Medical Ctr.
 Omaha, Alegent Health Immanuel Medical Center
 Omaha, Children's Hospital
 Omaha, Methodist Hospital Pathology Center
 Omaha, Nebraska Health System
 Omaha, The Nebraska Methodist Hospital
 Omaha, St. Joseph Hospital
 Omaha, Veterans Administration Medical Center
 Omaha, Bergan Mercy Medical Ctr. Pathology
 Omaha, Bishop Clarkson Hospital Pathology
 Omaha, Creighton Pathology Associates
 Omaha, Nichols Institute
 Omaha, Physicians Lab
 O'Neill, St. Anthony's Hospital
 Ord, Valley County Hospital
 Osceola, Annie Jeffrey Memorial County Hlth. Ctr.
 Oshkosh, Garden County Health Services
 Osmond, Osmond General Hospital
 Papillion, Alegent Health Midlands Community Hosp.
 Pawnee City, Pawnee County Memorial Hospital
 Pender, Pender Community Hospital
 Plainview, Plainview Public Hospital
 Red Cloud, Webster County Community Hospital
 Schuyler, Alegent Health-Memorial Hospital
 Scottsbluff, Regional West Medical Center
 Scottsbluff, Western Pathology Consultants
 Seward, Memorial Hospital
 Sidney, Memorial Health Center
 St. Paul, Howard County Community Hospital
 Superior, Brodstone Memorial Nuckolls County Hosp.
 Syracuse, Community Memorial Hospital
 Tecumseh, Johnson County Hospital
 Tilden, Tilden Community Hospital
 Valentine, Cherry County Hospital
 Wahoo, Saunders County Community Hospital
 Wayne, Providence Medical Center
 West Point, St. Francis Memorial Hospital
 Winnebago, U.S. Public Health Services Hospital
 York, York General Hospital

Other States:

Rapid City, SD, Rapid City Regional Hospital
 Sioux Falls, SD, Sioux Valley Hospital
 Yankton, SD, Sacred Heart Hospital
 Sioux City, IA, Mercy Medical Center

State Cancer Registries of Colorado, Iowa, Kansas,
 Missouri, and Wyoming